Traffic Collision Statistics Report

2009

Manitoba Public Insurance

Executive Summary

2009 Traffic Collision Statistics Report – Executive Summary

Motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report (TAR) for the collision. The *Traffic Collision Statistics Report* deals with these reportable collisions and the TARs arising from them.

The *Traffic Collision Statistics Report* is the official report of traffic collision statistics in Manitoba. It reports the details surrounding traffic collisions in Manitoba, allowing users to analyze the reasons why collisions occur. Knowing more about collisions helps policy makers, traffic safety experts, public safety programmers and legislators to pinpoint areas for review and create targeted approaches to preventing and reducing traffic collisions.

The following is a presentation of the key highlights of this report for 2009.

Traffic Collisions

In 2009, there were 26,578 collisions involving 7,302 victims, 43,610 vehicles and 41,097 drivers. Of these:

- 83 were fatal collisions, with 86 victims killed and 75 victims injured, and involving 126 vehicles and 120 drivers;
- 5,396 were injury collisions, with 7,141 victims injured and involving 9,268 vehicles and 8,938 drivers; and,
- 21,099 were PDO collisions, involving 34,216 vehicles and 32,039 drivers.

Overall collisions in Manitoba decreased marginally compared to 2008 and to the previous five year average (2004 to 2008 inclusive). There were:

- 26,578 collisions in 2009;
- 27,092 collisions in 2008; and,
- 31,298 collisions on average in the five year period 2004 to 2008.

Further, relative involvement in collisions in Manitoba continues to decrease. The relative involvement (per 10,000 licensed drivers) in 2009 represents the sixth year in a row where a decline has been recorded.

- Relative involvement in collisions (per 10,000 licensed drivers) in 2009 is 342.4.
- Relative involvement in collisions in 2009 is down 3% from 2008 (354.1) and is 20% lower than the previous five year average (2004-2008 average – 427.9).

Victims of Collisions

In 2009, there were 7,302 victims (or casualties) of traffic collisions, 8% fewer than in 2008 and 16% fewer than the previous five year (2004 to 2008) average. Of the victims in 2009:

- 86 were killed (92 in 2008);
- 384 were seriously injured (397 in 2008);
- 2,853 sustained minor injuries (2,979 in 2008);
- 3,288 sustained minimal injuries (3,691 in 2008); and
- 691 sustained injuries that are undefined in terms of severity (794 in 2008).

The relative involvement (per 100,000 people in the general population) of casualties in traffic collisions in 2009 (601.3) has decreased by 9% compared to 2008 and by 18% compared to the previous five years (2004 to 2008) on average. Casualty involvement rates in traffic collisions in 2009 where the victim:

- Was killed (7.1 in 2009) has decreased by nearly 8% compared to 2008 and by 21% compared to the previous five years on average; and,
- Was injured, including all levels of severity but excluding killed (594.2 in 2009), has decreased by 9% compared to 2008 and by 18% compared to the previous five years on average.

In 2009, there were 368 pedestrians killed or injured in traffic collisions, 16% fewer than in 2008 and 20% fewer than the previous five year (2004 to 2008) average. Of the pedestrian victims in 2009:

- 9 were killed (15 in 2008);
- 37 were seriously injured (49 in 2008);
- 137 sustained minor injuries (153 in 2008);
- 90 sustained minimal injuries (134 in 2008); and
- 95 sustained injuries that are undefined in terms of severity (88 in 2008).

The relative involvement (per 100,000 people in the general population) of pedestrians in traffic collisions in 2009 (30.3) has decreased by 17% compared to 2008 and by more than 22% compared to the previous five years (2004 to 2008) on average. Pedestrian involvement in traffic collisions in 2009 where the pedestrian:

- Was killed (0.7 in 2009) has decreased 41% compared to 2008 and by 38% compared to the previous five years; and,
- Was injured (29.6 in 2009) has decreased by 16% compared to 2008 and by 22% compared to the previous five years.

Vehicles and Drivers Involved in Collisions

In 2009, there were 43,610 vehicles involved in traffic collisions, 2% fewer than in 2008 and 15% fewer than the previous five year (2004 to 2008) average. Of the vehicles involved in 2009:

- 126 were involved in fatal collisions (141 in 2008);
- 9,268 were involved in injury collisions (10,625 in 2008); and,
- 34,216 were involved in PDO collisions (34,286 in 2008).

Relative involvement of vehicles in traffic collisions per 10,000 registered vehicles has decreased in 2009 compared to 2008 and to the previous five year period (2004 to 2008) on average. Relative involvement of vehicles in traffic collisions in 2009 for:

- Total collisions is 556.7; down 3% from 2008 and 19% from the previous five years;
- Fatal collisions is 1.6; down nearly 12% from 2008 and 14% from the previous five years;
- Injury collisions is 118.3; down 10% from 2008 and nearly 22% from the previous five years; and,
- PDO collisions is 436.7; down 1% from 2008 and nearly 19% from the previous five years.

In 2009, there were 41,097 drivers involved in traffic collisions, 2% fewer than in 2008 and 12% fewer than in the previous five years (2004 to 2008) on average. Of these:

- 120 were involved in fatal collisions (121 in 2008);
- 8,938 were involved in injury collisions (9,899 in 2008); and,
- 32,039 were involved in PDO collisions (32,227 in 2008).

Young drivers have a much higher relative rate of involvement in traffic collisions than older drivers. Drivers aged 16 to 24 years old have a relative involvement rate (per 10,000 licensed drivers) of 694.6 in traffic collisions in 2009. This is:

- 1.5 times that of drivers aged 25 to 34 (rate of 460.6);
- 1.6 times that of drivers aged 35 to 44 (rate of 444.0);
- 1.8 times that of drivers aged 45 to 54 (rate of 393.0);
- Twice that of drivers aged 55 to 64 (rate of 340.4); and,
- 2.6 times that of drivers aged 65 and older (rate of 266.6).

Male drivers are much more likely to be involved in a traffic collision than female drivers. The relative rate of involvement for men in traffic collisions in 2009 was 528.0, nearly one and a half times that of females (359.5). Relative involvement rates (per 10,000 licensed drivers) for collisions of differing severity:

- Fatal collisions: male rate – 2.4, female rate – 0.6.
- Injury collisions: male rate – 109.4, female rate – 90.6.
- PDO collisions: male rate – 416.3, female rate – 268.3.

The reader should note that neither the count of drivers involved in collisions nor the calculated relative rate of involvement rate takes into account exposure to risk in terms of driving hours, driving kilometres or driving situations.

Contributing Factors to Collisions

In 2009, at least one driver involved in the collision was noted as having:

- An at-fault driver action as a contributing factor in 27% of all collisions (76% of fatal collisions; 35% of injury collisions; 25% of PDO collisions);
- An at-fault human condition as a contributing factor in 6% of all collisions (40% of fatal collisions; 10% of injury collisions; 5% of PDO collisions); and,
- Environmental conditions as a contributing factor in 22% of all collisions (13% of fatal collisions; 14% of injury collisions; 24% of PDO collisions).

The most prevalent at-fault contributing factors recorded for collisions in 2009 include:

- "Animal action – wild" – 11% of all collisions (none fatal; 4% injury; 14% PDO);
- "Slippery road surface" – 7% of all collisions (11% fatal; 6% injury; 7% PDO);
- "Speed" – 5% of all collisions (28% fatal; 8% injury; 5% PDO);
- "Fail to yield right-of-way" – 4% of all collisions (4% fatal; 5% injury; 4% PDO);
- "Following too closely" – 4% of all collisions (1% fatal; 5% injury; 4% PDO);
- "Distraction/inattention" – 4% of all collisions (4% fatal; 6% injury; 4% PDO);
- "Lost control/Drive off the road" – 3% of all collisions (34% fatal; 6% injury; 2% PDO); and,
- "Impaired" – 2% of all collisions (28% fatal; 3% injury; 1% PDO).

In 2009:

- 38% of all victims resulted from a collision where at least one driver was noted as having an at-fault driver action contributing to the collision (76% of victims killed; 52% of victims seriously injured);
- 12% of all victims resulted from a collision where at least one driver was noted as having an at-fault human conditions contributing to the collision (41% of victims killed; 23% of victims seriously injured); and,
- 14% of all victims resulted from a collision where at least one driver was noted as having environmental conditions contributing to the collision (13% of victims killed; 16% of victims seriously injured).

The most prevalent at-fault contributing factors recorded for collisions where victims are killed or seriously injured include:

- "Lost control/Drive off the road" – 33% of victims killed and 15% of victims seriously injured;
- "Impaired" – 29% of victims killed and 12% of victims seriously injured;
- "Speed" – 28% of victims killed and 14% of victims seriously injured;
- "Careless driving" – 20% of victims killed and 11% of victims seriously injured;
- "Slippery road surface" – 11% of victims killed and 7% of victims seriously injured;
- "Leave stop sign before safe to do so" – 6% of victims killed and 3% of victims seriously injured;
- "Disobey traffic control device" – 5% of victims killed and 6% of victims seriously injured;
- "Loss of consciousness/Blackout prior to collision" – 5% of victims killed and less than 1% of victims seriously injured;
- "Fail to yield right-of-way" – 4% of victims killed and 7% of victims seriously injured;
- "Distraction/Inattention" – 4% of victims killed and 6% of victims seriously injured; and,
- "Driver inexperience" – 4% of victims killed and 6% of victims seriously injured.

Off-Road Vehicle (ORV) Collisions

In 2009, there were 126 off-road vehicle collisions, involving 102 victims, 153 vehicles, and 148 drivers. Of these:

- 10 were fatal collisions, with 10 victims killed, involving 10 vehicles and 10 drivers;
- 82 were injury collisions, with 92 victims injured, 94 vehicles involved and 93 drivers;
- 34 were PDO collisions, involving 49 vehicles and 45 drivers.

ORV collisions were most likely to occur:

- In winter months (December to March) representing 61 of 126 collisions (48%), with a smaller spike during summer (May to August), with 41 collisions (33% of the total).
- On weekends (all day Friday, Saturday and Sunday) representing 93 of 126 (74%) ORV collisions.
- During conditions of daylight, representing 82 of 126 (65%) ORV collisions.
- In the Eastern Region of Manitoba, representing 50 of 126 (40%) ORV collisions.
- In the 25 to 54 year old driver age group, representing 74 of 148 (50%) drivers involved in ORV collisions.

Alcohol-related Criminal Code Convictions

In 2008[1], there are a total of 2,034 alcohol-related Criminal Code offence convictions among Manitoba drivers (slightly increased from 2007 – 2,019; 5% more than the previous five year period, 2003 to 2007, on average – 1,930), including:

- 1,329 convictions for driving with a BAC over .08 (1,304 in 2007);
- 616 convictions for impaired driving (635 in 2007); and,
- 89 convictions for refusing to provide a breath or blood sample (80 in 2007).

Comparing 2008 to the previous five year period (2003 to 2007) on average:

- Convictions for driving with a BAC over .08 increased by 3%;
- Convictions for impaired driving increased by 13%; and,
- Convictions for refusing to provide a breath or blood sample decreased by 8%.

Rates of recidivism, indicated by second, third and subsequent offences by the same driver, decreased compared to five years ago. There was a 21% reduction in drivers convicted of a second alcohol-related Criminal Code offence, and a 24% reduction in drivers convicted of a third and subsequent offence in 2008 when compared to 2003.

Compared to five years ago, the relative involvement rate of drivers in alcohol-related Criminal Code convictions has declined by 14% (3.1 per 1,000 licensed drivers in 2003; 2.6 per 1,000 licensed drivers in 2008).

---

[1] There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2008 is the most current year for which these statistics are available.

Preface

Motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report (TAR) for the collision. The *Traffic Collision Statistics Report* deals with these reportable collisions and the TARs arising from them.

The *Traffic Collision Statistics Report* is the official report of traffic collision statistics in Manitoba. It reports the details surrounding traffic collisions in Manitoba, allowing users to analyze the reasons why collisions occur. Knowing more about collisions helps policy makers, traffic safety experts, public safety programmers and legislators to pinpoint areas for review and create targeted approaches to preventing and reducing traffic collisions.

Annual collision statistics, such as those contained in the *Traffic Collision Statistics Report*, are used to:

- Indicate trends;
- Identify driver and vehicle factors in accidents;
- Evaluate current programs and new provincial road safety initiatives;
- Monitor commercial vehicle collisions in accordance with the National Safety Code; and,
- Guide development of new policies and programs to reduce the frequency and severity of traffic collisions in the province.

The importance of this Report and the data contained therein is acknowledged in Canada's Road Safety Vision 2010 (RSV 2010), a national initiative aimed at making Canada's roads the safest in the world. The strategic objectives of RSV 2010 aim to raise public awareness of road safety issues; improve communication, co-operation and collaboration among road safety agencies; toughen enforcement measures; and, improve national road safety data collection and quality.

A brief Synopsis of each section of this Report can be found below.

Section 1 – Drivers, Vehicle and Collision Rates: Historical Trends
This section calculates involvement rates for total collisions as well as for fatal, injury and property damage only (PDO) collisions using licensed drivers and vehicles registered for the years 1999 to 2009 inclusive. This section also deals with relative involvement rates of drivers by specific age groups.

Section 2 – Licensed Drivers
This section deals with Active and Suspended Drivers by specific Age Groups, Gender and Manitoba Licence Class.

Section 3 – Vehicle Registrations
This section deals with vehicle registrations and examines these by three major categories: Commercial; Non-commercial; and, Snowmobiles (Recreational).

Section 4 – Traffic Collisions
This section counts the number of collisions in Manitoba and provides detail for collisions of different severity, fatal, injury and property damage only (PDO). Historical information regarding the number of collisions, the number of victims, the number of vehicles and the number of drivers over the ten year period 1999 to 2009 is presented. Details are provided for 2009 traffic collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Section 5 – Collision Victims
This section calculates the number of victims killed and injured in traffic collisions and examines the severity of the injury received by the victim. Month, time and day of occurrences are examined, as well as the age of the victim. Specific contributing factors to the collision are also presented for each victim. Relative involvement of victims in traffic collisions per 100,000 people in the general population is also calculated.

Section 6 – Pedestrian Victims
This section calculates the number of pedestrian victims killed and injured in traffic collisions and examines the severity of the injury received by the pedestrian victim. Month, time and day of occurrences are examined and breaks are provided for the age of the pedestrian. The specific pedestrian actions taken immediately prior to the collision are also presented. Relative involvement of pedestrians in traffic collisions per 100,000 people in the general population is also calculated.

Section 7 – Vehicle Involvement
This section calculates the number of vehicles involved in traffic collisions. Vehicle involvement in a collision is counted for each vehicle type (such as automobiles, vans, pick-up trucks, types of emergency vehicles). Vehicles involved in collisions that were, or were not, transporting hazardous loads and the nature of these loads is also indicated.

Section 8 – Driver Involvement
This section calculates the number of drivers involved in traffic collisions and breaks this down by age and gender of the driver. Relative involvement in traffic collisions is also detailed.

Section 9 – Contributing Factors
This section examines the contributing factors to traffic collisions as reported by police on the Traffic Accident Report (TAR). Detail is provided for collision severity and for the age of the driver involved in the collision. Driver involvement rates (per 10,000 licensed drivers) in collisions with specific contributing factors are detailed.

Section 10 – National Safety Code Monitoring Report
This section calculates the number of National Safety Code (NSC) commercial vehicles involved in traffic collisions, the severity of those collisions and the victims injured and killed in them.

Section 11 – Off-Road Vehicle Collisions
This section counts the number of off-road vehicle (ORV) collisions in Manitoba and provides detail for collisions of different severity, fatal, injury and property damage only (PDO). Historical information regarding the number of ORV collisions, the number of victims, the number of vehicles and the number of drivers involved over the ten year period 1999 to 2009 is presented. Details are provided for 2009 ORV collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Section 12 – Alcohol-Related Criminal Code Convictions
This section counts the number of drivers convicted of alcohol-related Criminal Code offences for the year 2008 by age at the time of the offence and includes historical statistics for the period 1989 to 2008. Details are provided for 'first', 'second' and 'third and subsequent' (i.e., third, fourth, fifth, etc. combined) offences, whether or not the offence involved a collision and whether or not a youth was present in the vehicle at the time of the offence.

Table of Contents

Executive Summary i
2009 Traffic Collision Statistics Report – Executive Summary iii
Preface vii
Table of Contents ix

SECTION 1 – Drivers, Vehicle and Collision Rates: Historical Trends 1
Introduction 3
Table 1-1 Fatal, Injury and Property Damage Collisions by Total Licensed Drivers 5
Table 1-2 Percentage Change Year-over-Year in Relative Involvement (per 10,000 Licensed Drivers) in Fatal, Injury, and Property Damage Only Collisions 6
Table 1-3 Fatal, Injury and Property Damage Collisions by Vehicles Registered 7
Figure 1-1 Relative Involvement in Total Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009 8
Figure 1-2 Relative Involvement in Fatal Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009 8
Figure 1-3 Relative Involvement in Injury Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009 9
Figure 1-4 Relative Involvement in Property Damage Only Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009 9
Table 1-4 Relative Involvement (Total Collisions) per 10,000 Licensed Drivers by Age Group 10
Figure 1-5 Relative Involvement (per 10,000 Licensed Drivers) in Total Collisions by Age Group 11

SECTION 2 – Licensed Drivers 13
Introduction 15
Chart 2-1 Class Licence System Quick Reference Chart 17
Table 2-1 Class 1-5 Licensed Drivers by Year and Driver Status 18
Table 2-2 Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status 19
Table 2-3 Class 1-5 Licensed Drivers by License Class, Driver Status and Gender 20
Table 2-4 Class 1-5 Male Drivers by Age Group, Driver Status and License Class 21
Table 2-5 Class 1-5 Female Drivers by Age Group, Driver Status and License Class 22
Table 2-6 Total Class 6 Active Licensed Drivers by Year 23
Table 2-7 Class 6 Active Licensed Drivers by Age Group, Gender and Driver Status 24
Table 2-8 Class 6 Active Licensed Drivers by License Class, Driver Status and Gender 25
Table 2-9 Active Class 6 Male Drivers by Age Group and License Class 26
Table 2-10 Active Class 6 Female Drivers by Age Group and License Class 26

SECTION 3 – Vehicle Registrations 27
Introduction 29
Table 3-1 Non Commercial Vehicle Class 30
Table 3-2 Commercial Vehicle Class 30
Table 3-3 Vehicle Registration Summary 31

SECTION 4 – Traffic Collisions 33
Introduction 35
Table 4-1 Ten Year Summary of Traffic Collisions 37
Figure 4-1 Historical Summary – Count of Traffic Collisions, Victims, Vehicles and Drivers 38
Table 4-2 Traffic Collisions by Month of Occurrence and Collision Severity 39
Figure 4-2 Traffic Collisions by Month of Occurrence and Collision Severity 40
Table 4-3 Traffic Collisions by Day of Occurrence and Collision Severity 41
Figure 4-3 Traffic Collisions by Day of Occurrence and Collision Severity 42
Table 4-4 Traffic Collisions by Time of Occurrence and Collision Severity 43
Figure 4-4 Traffic Collisions by Time of Occurrence and Collision Severity 44
Table 4-5 Traffic Collisions by Provincial Location and Collision Severity 45
Table 4-6 Collision Type by Urban/Rural Location 47
Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity 48
Figure 4-5 Traffic Collisions by Road Surface Condition and Collision Severity 49
Table 4-8 Traffic Collisions by Weather Condition and Collision Severity 50
Figure 4-6 Traffic Collisions by Weather Condition and Collision Severity 51
Table 4-9 Accident Configuration and Collision Severity 52
Figure 4-7 Distribution of Collisions by Accident Configuration and Collision Severity 53

SECTION 5 – Collision Victims 55
Introduction 57
Table 5-1 Historical Summary of Victims in Traffic Collisions 59
Table 5-2 Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions .. 61
Figure 5-1 Historical Summary of Victim Relative Involvement in Traffic Collisions 62
Table 5-3 Collision Victims by Month of Occurrence and Casualty Type 63
Table 5-3a Victims by Month of Occurrence and Casualty Type for Previous Five Years 64
Figure 5-2 Proportion of Victims Killed and Injured by Month of Occurrence 64
Table 5-4 Collision Victims by Day of Occurrence and Casualty Type 65
Table 5-4a Victims by Day of Occurrence and Casualty Type for Previous Five Years 66
Table 5-5 Collision Victims by Time of Occurrence and Casualty Type 67
Table 5-5a Victims by Time of Occurrence and Casualty Type for Previous Five Years 68
Table 5-6 Collision Victims by Gender and Casualty Type 70
Table 5-6a Collision Victims by Gender and Casualty Type for Previous Five Years 70
Figure 5-5 Proportion of Victims Killed and Injured by Gender and Casualty Type 71
Table 5-7 Collision Victims by Age Group and Casualty Type 72
Table 5-7a Collision Victims by Age Group and Casualty Type for Previous Five Years 73
Figure 5-6 Proportion of Victims Killed and Injured by Age Group and Casualty Type 74
Table 5-8 Collision Victims by Age Group, Casualty Type, and Gender 75
Table 5-8a Victims by Gender and Age Group and Casualty Type for Previous Five Years 76
Table 5-9 Casualty Involvement Rate (per 100,000 people) by Gender and Age Group and Casualty Type 77
Table 5-10 Collision Victims Killed by Road User Class and Age Group 79

Table 5-10a Victims by Road User Class and Age Group and Casualty Type for Previous Five Years 82
Figure 5-8 Proportion of Victims Killed and Injured by Road User Class 84
Table 5-11 Collision Victims by Collision Type and Casualty Type 85
Table 5-11a Victims by Collision Type and Casualty Type for Previous Five Years 86
Table 5-12 Collision Victims by Accident Configuration and Casualty Type 87
Table 5-12a Victims by Accident Configuration and Casualty Type for Previous Five Years 88
Table 5-13 Collision Victims by Provincial Location and Casualty Type 89
Table 5-13a Victims by Provincial Location and Casualty Type for Previous Five Years 90
Table 5-14 Vehicle Occupant Victims by Safety Equipment Use and Casualty Type 91
Table 5-14a Victims by Safety Equipment Use and Casualty Type for Previous Five Years 92
Table 5-15 Safety Equipment Effectiveness 93
Table 5-16 Vehicle Occupant Victim Ejections in Traffic Collision 94
Table 5-16a Vehicle Occupant Victim Ejections in Traffic Collision for Previous Five Years 95

SECTION 6 – Pedestrian Victims 97
Introduction 99
Table 6-1 Ten Year Summary of Pedestrians Killed and Injured in Traffic Collisions 101
Table 6-2 Ten Year Summary of Pedestrian Involvement Rate (per 100,000 people) in Traffic Collisions 103
Figure 6-1 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions 104
Table 6-3 Pedestrians Killed and Injured by Month of Occurrence and Casualty Type 105
Table 6-3a Pedestrians Killed and Injured by Month of Occurrence and Casualty Type for Previous Five Years 106
Figure 6-2 Proportion of Pedestrians Killed and Injured by Month of Occurrence 106
Table 6-4 Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type 107
Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years 108
Figure 6-3 Proportion of Pedestrians Killed and Injured by Day of Occurrence 108
Table 6-5 Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type 109
Table 6-5a Pedestrian Victims by Time of Occurrence and Casualty Type for the Previous Five Years 110
Figure 6-4 Proportion of Pedestrians Killed and Injured by Time of Occurrence 110
Table 6-6 Total Pedestrians Killed and Injured by Age Group and Casualty Type 111
Table 6-6a Pedestrians Killed and Injured by Age and Casualty Type for Previous Five Years 112
Table 6-7 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group 113
Figure 6-5 Proportion of Pedestrians Killed and Injured by Age Group 114
Table 6-8 Pedestrian Action and Casualty Type 115
Table 6-8a Pedestrian Action and Casualty Type for the Previous Five Years 116

SECTION 7 – Vehicle Involvement 117
Introduction 119
Table 7-1 Ten Year Summary of Vehicles Involved in Traffic Collisions 121
Table 7-2 Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions 122

Figure 7-1 Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Fatal, Injury and PDO Collisions 123

Table 7-3 Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity 124

Table 7-4 Vehicles Involved in Traffic Collisions for Combined Vehicle Categories 125

Table 7-5 Vehicle Relative Involvement (per 10,000 Registered Vehicles) in Traffic Collision by Combined Vehicle Categories and Collision Severity 125

SECTION 8 – Driver Involvement 127

Introduction 129

Table 8-1 Ten Year Summary of Drivers Involved in Traffic Collisions 131

Table 8-2 Historical Summary of Driver Involvement (Relative Rate per 10,000 Licensed Drivers) in Traffic Collisions 132

Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions of Different Severity 133

Table 8-3 Drivers Involved in Traffic Collisions by Age Group and Collision Severity 134

Figure 8-2 Proportion of Traffic Collisions by Driver Age and Collision Severity 135

Table 8-4 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity 136

Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity 137

Figure 8-3 Proportion of Drivers Involved in Traffic Collisions by Gender and Collision Severity 138

Table 8-6 Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity 139

Table 8-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity 140

SECTION 9 – Contributing Factors 141

Introduction 143

Table 9-1 Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity 147

Table 9-1a Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity for Previous Five Years 150

Figure 9-1 Select At-fault Contributing Factors by Collision Severity 153

Table 9-2 Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collisions Severity 154

Table 9-3 Drivers Involved in Fatal Collisions by Contributing Factors and Age Group 158

Table 9-3a Drivers Involved in Fatal Collisions by Contributing Factors and Age Group for Previous Five Years 161

Table 9-4 Drivers Involved in Injury Collisions by Contributing Factors and Age Group 164

Table 9-4a Drivers Involved in Injury Collisions by Contributing Factors and Age Group for Previous Five Years 167

Table 9-5 Drivers Involved in PDO Collisions by Contributing Factors and Age Group 170

Table 9-5a Drivers Involved in PDO Collisions by Contributing Factors and Age Group for Previous Five Years 173

Table 9-6 Drivers Involved in All Traffic Collisions by Contributing Factors and Age Group 176

Table 9-6a Drivers Involved in All Traffic Collisions by Contributing Factors and Age Group for Previous Five Years 179

Table 9-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age 182

Table 9-7a Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age for Previous Five Years ... 184
Table 9-8 Contributing Factors to a Collision by Collision Severity ... 189
Table 9-8a Contributing Factors to a Collision by Collision Severity for Previous Five Years ... 192
Table 9-9 Contributing Factors for Victims of a Collision by Casualty Type ... 195
Table 9-9a Contributing Factors for Victims of a Collision by Casualty Type for Previous Five Years 198
Table 9-10 Historical Summary of Contributing Factors Recorded for Drivers Involved in Collisions . 201
Table 9-11 Historical Summary of Contributing Factors to a Collision Overall ... 204
Table 9-12 Historical Summary of Contributing Factors Recorded for Victims of Collisions ... 207

SECTION 10 - National Safety Code Monitoring Report ... 211
Introduction ... 213
Table 10-1 NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity ... 216
Figure 10-1 Proportion of NSC Commercial Vehicles by Vehicle Type and Collision Severity ... 217
Table 10-2 Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type ... 218
Table 10-2a Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type for Previous Five Years ... 219
Figure 10-2 Proportion of Victims Involved in Collisions with NSC Commercial Vehicles by Vehicle Type and Casualty Type ... 220
Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity ... 221
Table 10-4 NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity ... 223
Table 10-4a NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity for the Previous Five Years ... 226
Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity ... 228
Table 10-5a Vehicles Involved in Traffic Collisions by Load Type and Collision Severity ... 229
Table 10-5b NSC Commercial Vehicles Involved in Traffic Collisions by Load Type and Collision Severity ... 230
Table 10-6 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type ... 232
Table 10-7 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type ... 233
Table 10-8 Historical Summary of Vehicles Involved in Traffic Collisions by Load Type ... 234

SECTION 11 – Off-Road Vehicle Collisions ... 235
Introduction ... 237
Table 11-1 Ten Year Summary of Off-Road Vehicle Collisions ... 240
Figure 11-1 Historical Summary of ORV Collisions ... 241
Table 11-2 Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type ... 242
Figure 11-2 Proportion of ORV Collisions by Victims, Vehicle Type and Drivers ... 243
Table 11-3 ORVs Involved in Collisions by Vehicle Type and Active Registration ... 244
Table 11-4 Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity ... 245

Table 11-5 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity 246

Figure 11-3 Distribution of Total Off-Road Vehicle Collisions by Month of Occurrence........................ 247

Table 11-6 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity.......................... 248

Figure 11-4 Proportion of ORV Collisions by Collision Severity and Day of Occurrence....................... 248

Table 11-7 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity 249

Figure 11-5 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence 250

Table 11-8 Off-Road Vehicle Collisions by Light Condition and Collision Severity.............................. 251

Figure 11-6 Proportion of ORV Collisions by Collision Severity and Light Condition........................... 251

Table 11-9 ORV Collisions by Weather Condition and Collision Severity... 252

Figure 11-7 Proportion of ORV Collisions by Collision Severity and Weather Condition...................... 253

Map 1-1 Manitoba Infrastructure and Transportation (MIT) Regions 254

Table 11-10 ORV Collisions by MIT Regions and Collision Severity 255

Figure 11-8 Proportion of ORV Collisions by Collision Severity and MIT Regions 256

Table 11-11 Off-Road Vehicle Collisions by Location and Collision Severity 257

Table 11-12 ORV Collision Victims by Age Group and Casualty Type.. 258

Table 11-13 ORV Collision Victims by Gender and Casualty Type 259

Table 11-14 ORV Collision Victims by Safety Equipment Use and Casualty Type 2008 259

Table 11-15 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants.......... 260

Table 11-16 Drivers Involved in ORV Collisions by Age Group and Collision Severity 261

Figure 11-9 Distribution of Total Driver Involvement in Off-Road Vehicle Collisions by Age Group 2009 262

Table 11-17 ORV Collisions by Contributing Factors and Collision Severity.. 263

Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration.. 267

Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence 268

Table 11-20 Historical Summary of ORV Collisions by Location 269

Table 11-21 Historical Summary of ORV Collision Victims by Age Group... 270

Table 11-22 Historical Summary of ORV Collisions by Contributing Factors 271

SECTION 12 - Alcohol-Related Criminal Code Convictions.. 275

Introduction 277

Table 12-1: Total Alcohol-Related Criminal Code Convictions 279

Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group 281

Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group........ 282

Table 12-3: Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type 283

Table 12-4: Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group 284

Table 12-5: Driver Involvement in 'First', 'Second' and 'Third and Subsequent' Alcohol-Related Criminal Code Convictions by Age Group 285

Glossary – Terms & Definitions 287

Terms and Definitions.. 289

SECTION 1 – Drivers, Vehicle and Collision Rates: Historical Trends

Introduction

This section calculates involvement rates for total collisions as well as for fatal, injury and property damage only (PDO) collisions using licensed drivers and vehicles registered for the years 1999 to 2009 inclusive. This section also presents relative involvement rates for drivers by specific age groups.

Key Highlights

In 2009, there were a total of 26,578 collisions reported to law enforcement agencies in Manitoba. Of these:

- 83 involved a fatality (0.3% of all collisions);
- 5,396 involved an injury, but not a fatality (20.3% of all collisions); and,
- 21,099 involved property damage only (79.4% of all collisions).

Overall collisions in Manitoba decreased marginally compared to 2008 and to the previous 5-year average (2004 to 2008 inclusive). There were:

- 26,578 collisions in 2009;
- 27,092 collisions in 2008; and,
- 31,298 collisions on average in the 5-year period 2004 to 2008.

Further, relative involvement in collisions in Manitoba continues to decrease. The relative involvement (per 10,000 licensed drivers) in 2009 represents the sixth year in a row where a decline in has been recorded.

- Relative involvement in collisions (per 10,000 licensed drivers) in 2009 is 342.4.
- Relative involvement in collisions in 2009 is down 3% from 2008 (354.1) and is 20% lower than the previous 5-year average (2004-2008 average – 427.9).

Given the small number of fatal collisions in any given year, the decreases noted in 2009 total number of collisions and relative involvement in collisions can mostly be attributable to a fall in the number and rate of involvement in injury collisions. There are 2 fewer fatal collisions in 2009 than in 2008 while the number of injury collisions decreased by 10% in the same time period. Property damage only collisions remain relatively unchanged, increasing by less than half a percent in 2009 compared to 2008, although the relative involvement rate for PDO collisions has decreased by 1%.

Major Elements Examined

Counts of collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

Relative involvement in collisions is calculated for total collisions and for collisions of different severity (fatal, injury and PDO). It is calculated both for licensed drivers and for vehicles registered. Relative involvement per 10,000 licensed drivers by different age groups is also examined.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

When comparing historical results of relative involvement rates per 10,000 licensed drivers, the reader is cautioned to note that data from 1999 to 2002 used a different methodology when counting the population of licensed drivers than has been recently implemented for this report. While presented here, it should be noted that calculations in these years are not directly comparable to the calculations for 2003 to 2009.

The reader is also cautioned that counts of collisions from 2003 to 2009 uses a methodology slightly different than that employed in 1999 to 2002. Counts of all collisions in 2003 to 2009 have been taken from an improved verification process, i.e., the data was examined for consistency and accuracy and duplicate records have been removed. Counts of collisions in 1999 to 2002 had a similar verification process employed, but only for fatal collisions. This process is refined again in 2009; data from 2003 to 2009 has been adjusted to reflect a single consistent process, resulting in minor differences to 2008 published report.

Terms and Definitions

"Reportable Collision"

- Motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report for the collision. This report deals with these reportable collisions and the Traffic Accident Reports arising from them.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence. Fatal collisions resulting from suicide, where the fatality occurs because of a medical condition and collisions that do not occur on public roadways are excluded.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Relative Involvement"

- A calculation of the number of collisions per specific unit of licensed drivers or registered vehicles. For the purposes of this report, relative involvement is calculated per 10,000 licensed drivers or registered vehicles.

"Licensed drivers"

- A count of all Manitobans aged 16 and older who hold a valid licence within the licensing year including active and suspended drivers. (See *Section 2 Licensed Drivers* for more information)

Table 1-1 Fatal, Injury and Property Damage Collisions by Total Licensed Drivers

Table 1-1
Fatal, Injury, and Property Damage Collisions
by Total Licensed Drivers: 1999 to 2009

Year	Licensed Drivers	Total Collisions	Collisions /10,000 Drivers	Total Fatal	Fatal /10,000 Drivers	Total Injury	Injury /10,000 Drivers	Total PDO	PDO /10,000 Drivers
1999*	702,851	28,667	407.9	99	1.4	6,959	99.0	21,609	307.4
2000*	706,512	30,973	438.4	92	1.3	6,931	98.1	23,950	339.0
2001*	695,747	30,999	445.5	82	1.2	6,656	95.7	24,261	348.7
2002*	700,169	31,983	456.8	99	1.4	6,953	99.3	24,931	356.1
2003	703,889	34,771	494.0	95	1.3	7,273	103.3	27,403	389.3
2004	711,488	35,002	492.0	90	1.3	6,855	96.3	28,057	394.3
2005	716,169	33,164	463.1	88	1.2	6,482	90.5	26,594	371.3
2006	724,330	31,738	438.2	104	1.4	6,503	89.8	25,131	347.0
2007	752,398	29,494	392.0	96	1.3	6,415	85.4	22,983	305.5
2008	765,014	27,092	354.1	85	1.1	5,974	78.4	21,033	274.9
2009	**776,209**	**26,578**	**342.4**	**83**	**1.1**	**5,396**	**69.5**	**21,099**	**271.8**
2004-08 Average	733,880	31,298	427.9	93	1.3	6,446	88.1	24,760	338.6

*NOTE: Data from 1999 to 2002 used a different methodology when counting the population of licensed drivers than has been recently implemented for this report and is therefore not exactly comparable to the calculations for 2003 to 2009.

Relative to ten years ago, the total number of collisions in 2009 has decreased by 14% (26,578 in 2009 compared to 30,973 in 2000). More importantly, the relative involvement (per 10,000 drivers) in collisions has decreased by 22% in the same time period (342.4 in 2009 compared to 438.4 in 2000). Compared to 2008, total collisions have decreased by 2% (down from a total of 27,092) while relative involvement has decreased by just over 3%. Compared to the previous 5-year average (2004 to 2008), total collisions have decreased 15% and relative involvement has fallen by 20%.

Collision counts of different severities are also all down in 2009 compared to historical figures.

- Fatal collisions have decreased by nearly 10% compared to 2000, by 2% compared to 2008 and by 10% compared to the previous 5-year average.
- Injury collisions have decreased by 22% compared to 2000, by nearly 10% compared to 2008 and over 16% compared to the previous 5-year average.
- PDO collisions have decreased by 12% compared to 2000, but have seen a slight (0.3%) increase compared to 2008. They are down by nearly 15% compared to the previous 5-year average.

Table 1-2 Percentage Change Year-over-Year in Relative Involvement (per 10,000 Licensed Drivers) in Fatal, Injury, and Property Damage Only Collisions

Table 1-2
Percentage Change Year-Over-Year in Relative Involvement Rate (per 10,000 Licensed Drivers) in Fatal, Injury, and PDO Collisions: 1999 to 2009

Year	Collisions /10,000 Drivers	% change to previous year	Fatal /10,000 Drivers	% change to previous year	Injury /10,000 Drivers	% change to previous year	PDO /10,000 Drivers	% change to previous year
1999	407.9	-	1.4	-	99.0	-	307.4	-
2000	438.4	7.5%	1.3	-7.6%	98.1	-0.9%	339.0	10.3%
2001	445.5	1.6%	1.2	-9.5%	95.7	-2.5%	348.7	2.9%
2002	456.8	2.5%	1.4	20.0%	99.3	3.8%	356.1	2.1%
2003	494.0	8.1%	1.3	-4.5%	103.3	4.0%	389.3	9.3%
2004	492.0	-0.4%	1.3	-6.3%	96.3	-6.8%	394.3	1.3%
2005	463.1	-5.9%	1.2	-2.9%	90.5	-6.1%	371.3	-5.8%
2006	438.2	-5.4%	1.4	16.9%	89.8	-0.8%	347.0	-6.6%
2007	392.0	-10.5%	1.3	-11.1%	85.4	-4.9%	305.5	-12.0%
2008	354.1	-9.7%	1.1	-12.9%	78.4	-8.2%	274.9	-10.0%
2009	**342.4**	**-3.3%**	**1.1**	**-3.8%**	**69.5**	**-11.3%**	**271.8**	**-1.1%**
2004-08 Average*	427.9	-6.4%	1.3	-3.3%	88.1	-5.3%	338.6	-6.6%

*The "% change to previous year" for "2004-08 Average" is an average rate of change for the time period 2004 to 2008.

Recognizing that collision counts could be impacted either positively or negatively by changing population statistics, relative involvement rates per 10,000 licensed drivers are examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on how many drivers are being involved in collisions instead of simply a raw count of collisions overall.

Relative involvement (per 10,000 licensed drivers) in collisions is down overall as well as for collisions of different severities. The relative involvement per 10,000 drivers in collisions in 2009 is:

- 342.4 for all collisions, down more than 3% compared to 2008 and 20% lower than the previous 5-year (2004 to 2008) average;
- 1.1 for fatal collisions, down nearly 4% from 2008[2] and more than 15% from the previous 5-year average;
- 69.5 for injury collisions, down more than 11% from 2008 and 21% from the previous 5-year average; and,
- 271.8 for PDO collisions, down 1% from 2008 and nearly 20% from the previous 5-year average.

The downward trend in collision rates and involvement has continued in 2009. In the previous five years, involvement rates overall have been decreasing by an average of 6.4% each year; 2009's decline of 3.3% compared to 2008 is only about half that average rate of decrease.

The overall decrease in 2009 is mostly attributable to a decrease in the relative involvement rate for injury collisions. After large fluctuations in the previous three years, the rate of involvement in fatal collisions is only slightly lower in 2009 than in 2008 and the involvement rate in PDO collisions is relatively unchanged. The involvement rate in injury collisions, however, is substantially lower in 2009 than in 2008, with a decrease more than twice the average rate of change in the previous five years.

---

[2] While the relative involvement rate for both 2009 and 2008 is displayed as 1.1, this figure has been rounded to one decimal place. The percentage change year-over-year is calculated using much more precise figures, i.e., figures are not rounded to a single decimal point during calculations.

Table 1-3 Fatal, Injury and Property Damage Collisions by Vehicles Registered

Table 1-3

Fatal, Injury, and Property Damage Collisions by Vehicles Registered: 2002 to 2009

Year	Vehicles Registered *	Total Collisions	Collisions /10,000 Vehicles	Total Fatal	Fatal /10,000 Vehicles	Total Injury	Injury /10,000 Vehicles	Total PDO	PDO /10,000 Vehicles
2002	707,802	31,983	451.9	99	1.4	6,953	98.2	24,931	352.2
2003	714,170	34,771	486.9	95	1.3	7,273	101.8	27,403	383.7
2004	725,590	35,002	482.4	90	1.2	6,855	94.5	28,057	386.7
2005	730,838	33,164	453.8	88	1.2	6,482	88.7	26,594	363.9
2006	740,636	31,738	428.5	104	1.4	6,503	87.8	25,131	339.3
2007	753,705	29,494	391.3	96	1.3	6,415	85.1	22,983	304.9
2008	773,596	27,092	350.2	85	1.1	5,974	77.2	21,033	271.9
2009	**783,426**	**26,578**	**339.3**	**83**	**1.1**	**5,396**	**68.9**	**21,099**	**269.3**
2004-08 Average	744,873	31,298	421.2	93	1.2	6,446	86.7	24,760	333.3

*Vehicles registered exclude off-road vehicles, non-commercial snow vehicles, non-commercial trailers, non-farm tractors and PSV trailers.

Relative involvement in collisions per 10,000 vehicles registered is another way to view collision rates in a standardized format. It attempts to account for fluctuations in the total number of vehicles registered for use on Manitoba roadways.

In 2009, there are 339.3 collisions for every 10,000 vehicles registered in Manitoba. This represents a 3% decrease from the rate in 2008. Over the previous five years (2004 to 2008), the rate of collisions per 10,000 vehicles registered has steadily declined by an average of 6% less each year.

The rate of involvement in collisions of different severity has also been decreasing in recent years. In 2009, there are 1.1 fatal collisions for every 10,000 vehicles, down nearly 4% from 2008[3] and 15% compared to the previous 5-year (2004 to 2008) average. Involvement rates for injury and PDO collisions are both the lowest they've been since this report started tracking involvement rates in this fashion. Involvement in injury collisions is down nearly 11% compared to 2008 and nearly 21% compared to the previous 5-year average while involvement in PDO collisions is down 1% from 2008 and nearly 20% compared to the previous 5-year average.

Relative involvement rates between 2003 and 2009 for collisions in Manitoba, both per 10,000 licensed drivers and per 10,000 registered vehicles, are noted in Figures 1-1, 1-2, 1-3 and 1-4 on the following pages.

---

[3] While the relative involvement rate for both 2009 and 2008 is displayed as 1.1, this figure has been rounded to one decimal place. The percentage change year-over-year is calculated using much more precise figures, i.e., figures are not rounded to a single decimal point during calculations.

Figure 1-1 Relative Involvement in Total Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009

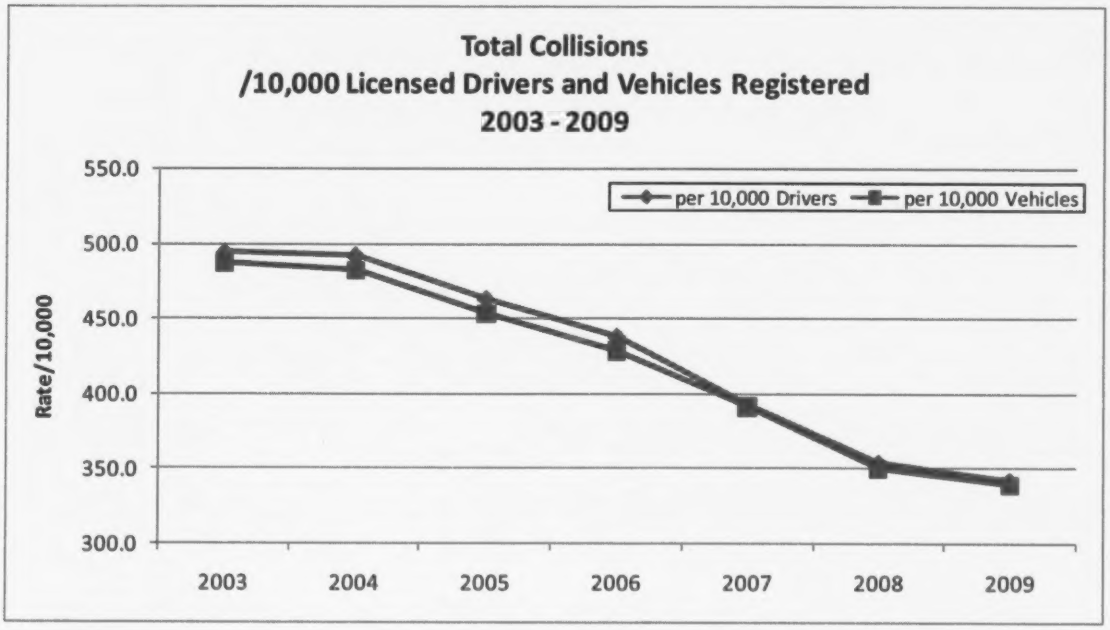


Figure 1-2 Relative Involvement in Fatal Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009

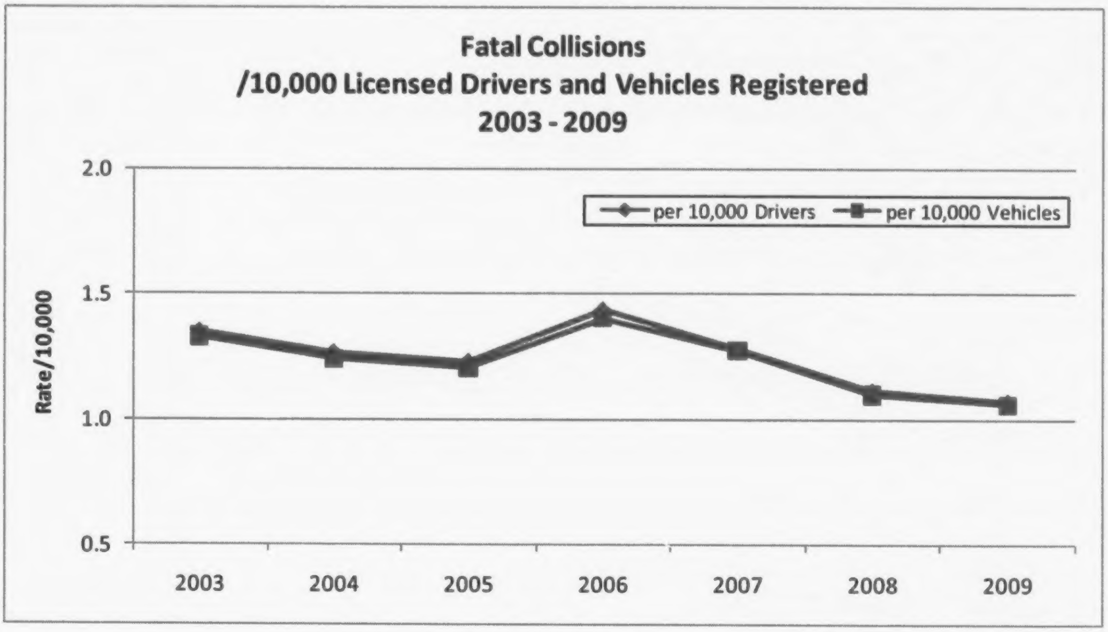


Figure 1-3 Relative Involvement in Injury Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009

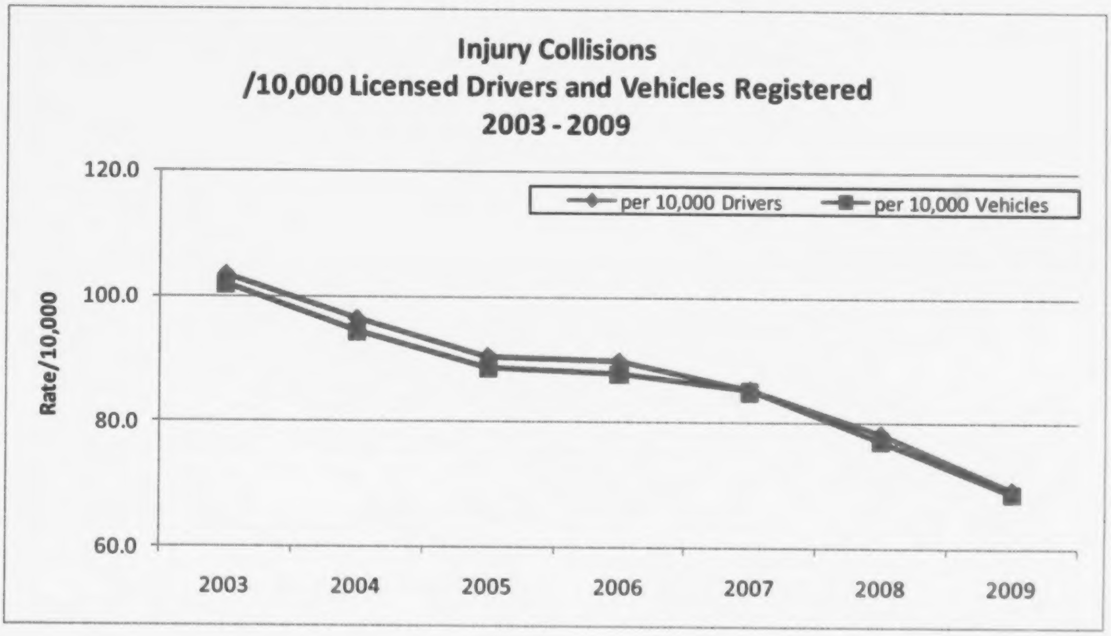


Figure 1-4 Relative Involvement in Property Damage Only Collisions by Licenced Drivers and Vehicles Registered: 2003 to 2009

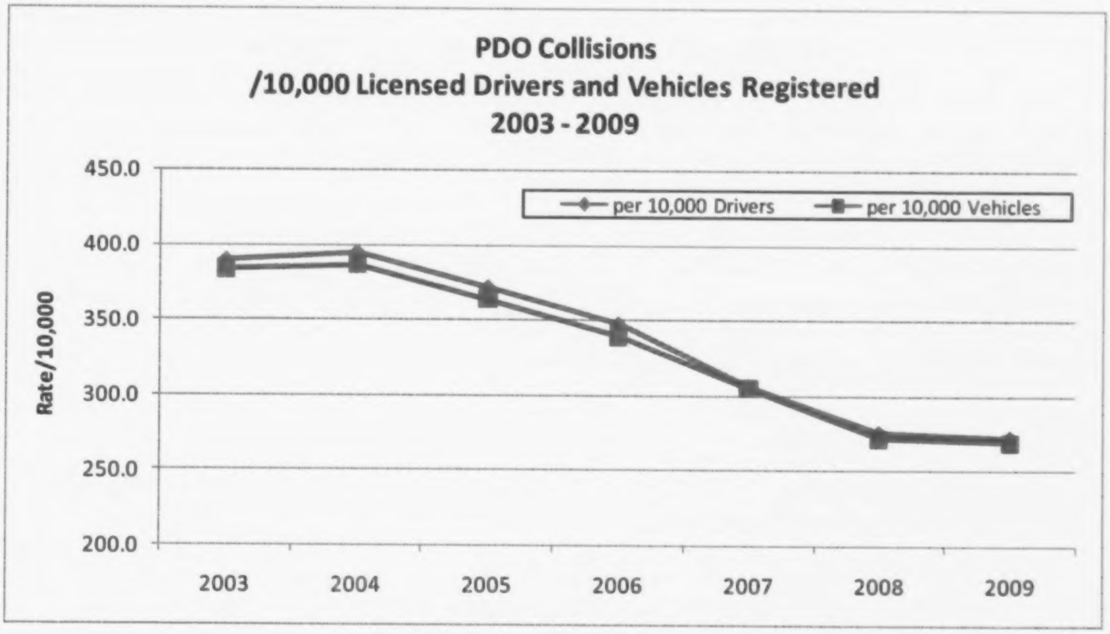


Table 1-4 Relative Involvement (Total Collisions) per 10,000 Licensed Drivers by Age Group

Table 1-4
Relative Involvement (Total Collisions) /10,000 Licensed Drivers by Age Group: 1999 to 2009

Age Group	Year											2004-2008 Average
	1999*	2000*	2001*	2002*	2003	2004	2005	2006	2007	2008	**2009**	
16-19	1240	1210	1150	1170	1186.9	1154.2	1044.1	1009.6	886.5	801.3	**783.9**	979.1
20-24	910	890	810	840	957.4	957.2	872.1	828.9	763.4	711.0	**687.8**	826.5
25-34	640	620	570	600	688.7	689.2	646.6	606.2	555.5	523.1	**492.6**	604.1
35-44	530	530	480	530	630.6	650.0	611.1	563.1	509.2	476.3	**468.9**	562.0
45-54	470	460	440	460	571.4	558.6	543.7	513.1	466.8	428.1	**416.8**	502.0
55-64	420	400	380	400	496.7	512.9	479.7	446.7	412.4	365.5	**363.6**	443.4
65-74	360	370	340	360	429.8	419.2	400.2	382.0	336.4	314.9	**306.4**	370.6
75>	380	380	380	360	390.2	361.8	348.1	347.3	292.5	247.1	**244.9**	319.3

*NOTE: Data from 1999 to 2002 used a different methodology when counting the population of licensed drivers than has been recently implemented for this report and is therefore not exactly comparable to the calculations for 2003 to 2009.

As age increases, relative involvement in collisions decreases. The youngest drivers in Manitoba continue to have the highest rates of involvement in collisions. In 2009, those aged 16 to 19 have a relative involvement of 783.9, which is:

- 14% higher than those aged 20 to 24;
- 59% higher than those aged 25 to 34;
- 67% higher than those aged 35 to 44;
- 88% higher than those aged 45 to 54;
- More than twice that of those aged 55 to 64; and,
- Nearly three times that of those aged 65 and older.

Manitobans aged 20 to 24, while having a lower relative involvement rate than drivers younger than them, also have substantially higher involvement rates than drivers in older age brackets. At 687.8, the relative involvement rate of drivers aged 20 to 24 is:

- 40% higher than those aged 25 to 34;
- 47% higher than those aged 35 to 44;
- 65% higher than those aged 45 to 54;
- 89% higher than those aged 55 to 64; and,
- Two and a half times that of those aged 65 and older.

While differences do exist between the relative involvement rates of drivers in subsequent age brackets, the percentage differences between groups are much smaller.

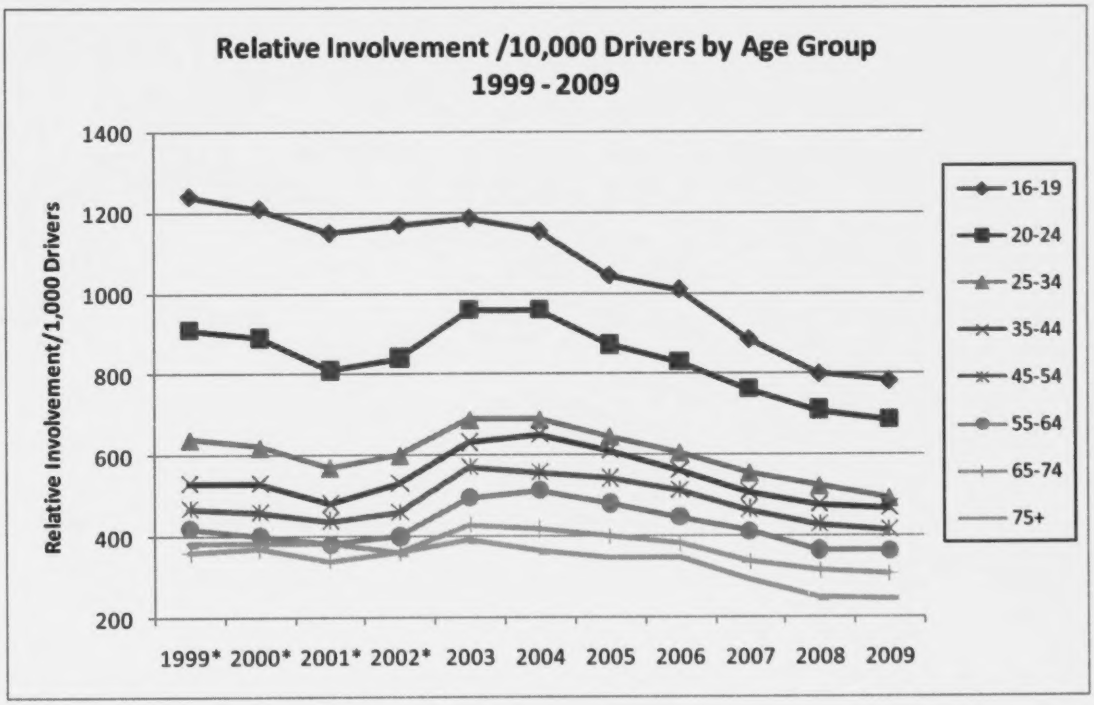
Relative collision involvement rates for drivers of all age groups continued to decline in 2009, a trend evident since 2004. Drivers aged 25 to 34 showed the largest percentage decline when compared to 2008 (6% decreased), while drivers aged 55 to 64 and those aged 75 and older showed the least. Decreases in any age group were smaller when comparing 2009 to 2008 than the year-over-year decreases experienced previously.

When compared to the previous 5-year average, all age groups show decreases in 2009, with the largest decreases coming in the oldest (aged 75 and over) and youngest (aged 16 to 19) brackets.

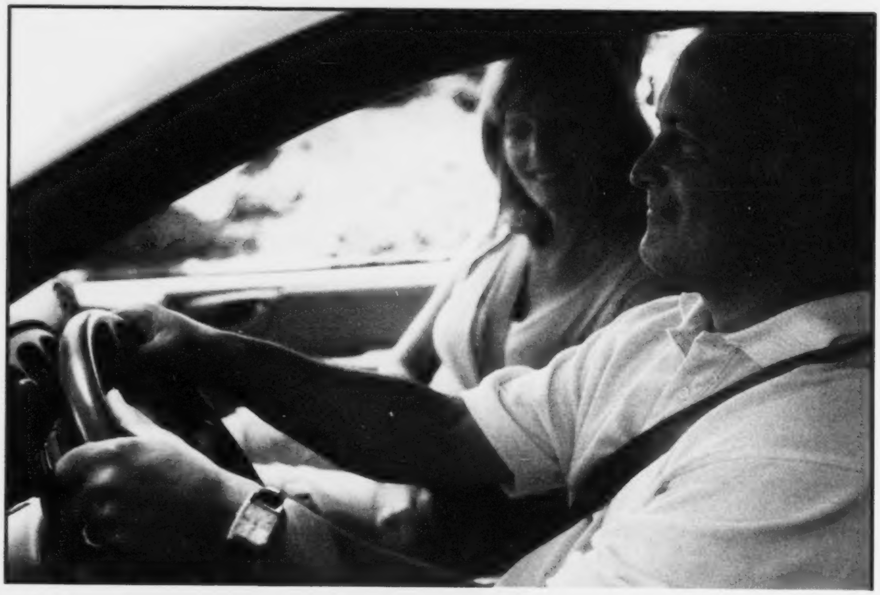
Percentage decreases in relative involvement per 10,000 licensed drivers in 2009 by age group:

- Age 16 to 19 – 2009 involvement is down 2% compared to 2008 and down 20% compared to the previous 5-year average (2004 to 2008).
- Age 20 to 24 – 2009 involvement is down 3% compared to 2008 and down 17% compared to the previous 5-year average (2004 to 2008).
- Age 25 to 34 – 2009 involvement is down 6% compared to 2008 and down 19% compared to the previous 5-year average (2004 to 2008).
- Age 35 to 44 – 2009 involvement is down 2% compared to 2008 and down 17% compared to the previous 5-year average (2004 to 2008).
- Age 45 to 54 – 2009 involvement is down 3% compared to 2008 and down 17% compared to the previous 5-year average (2004 to 2008).
- Age 55 to 64 – 2009 involvement is down 1% compared to 2008 and down 18% compared to the previous 5-year average (2004 to 2008).
- Age 65 to 74 – 2009 involvement is down 3% compared to 2008 and down 17% compared to the previous 5-year average (2004 to 2008).
- Age 75 and over – 2009 involvement is down 1% compared to 2008 and down 23% compared to the previous 5-year average (2004 to 2008).

Figure 1-5 Relative Involvement (per 10,000 Licensed Drivers) in Total Collisions by Age Group



SECTION 2 – Licensed Drivers



Introduction

This section deals with Active and Suspended Drivers by specific Age Groups, Gender and Manitoba Licence Class.

Key Highlights

There is an average of 776,209 licensed drivers in Manitoba in 2009, an increase of 1.5% compared to 2008. Of these:

- 97% are Active drivers, 3% are Suspended drivers;
- 52% are Male, 48% are Female;
- 70% are between the ages of 25 and 64; and,
- Men account for 75% of all Suspended drivers in Manitoba.

There is an average of 60,105 licensed motorcycle drivers in Manitoba in 2009.

Major Elements Examined

Counts of licensed drivers in Manitoba for 2009 represent an average for the 2009 calendar year. That is, "point-in-time" observations (licensed drivers by age, licence class and gender) are recorded as of the first of each month and then an average for the year is calculated and reported. Due to rounding in this process, some columns and rows may not add to the total. This is different from previous years. Prior to 2008, licensed driver counts as of the end of December (recorded on January 1st the following year) were adjusted according to the average monthly proportion of total drivers by gender, age and class for the previous year. To enable historical comparisons of licensed driver counts, data reported here for the years 2001 through 2007 have been adjusted to reflect this new methodology. Information regarding the monthly count of Class 6 licence holders was not available for years prior to 2003; the historical count of Class 6 licence holders has not been adjusted to reflect the new methodology for the years 2001 and 2002.

At the beginning of this section, there is a quick reference chart of Manitoba's Driver Licence and Vehicle Class descriptions. A review of these charts will indicate which Driver Licence Class is required to operate specific Vehicle Classes.

In view of the fact it is a requirement for Class 6 licence holders to first possess a Class 1-5 licence prior to obtaining a Class 6 licence, Class 1 to 5 licence holders are discussed separately from Class 6 licence holders to avoid duplication of licence counts. Tables 2-6, 2-7, 2-8, 2-9 and 2-10 consider the number of Class 6 active motorcycle licensed drivers by Gender, Age Group and Driver Licence Class.

Terms and Definitions

"Licence Class"

- A Manitoba Driver's Licence of a specific level which permits the holder to operate vehicles within a specific Vehicle Class

"Vehicle Class"

- Category of vehicles meeting specific designations and specifications

"Active drivers"

- Drivers holding an active Manitoba Driver's Licence of any specific Licence Class

"Suspended drivers"

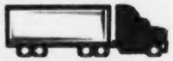
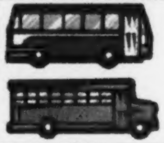
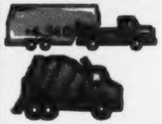
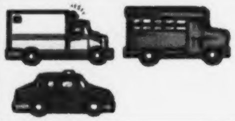
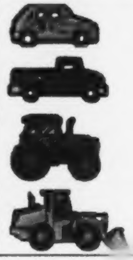
- Drivers holding a Manitoba Driver's Licence of any specific Licence Class who have been disqualified from driving for some reason. Although the list is extensive, some possible suspensions could be for driving violations, medical conditions, administrative suspensions and criminal code convictions.

"Graduated Driver Licensing (GDL)"

- A three-stage program designed to help new drivers, regardless of age, acquire the knowledge and skill needed to safely operate a motor vehicle. Each licence stage has specific rules and restrictions governing when and under what circumstances the holder is allowed to operate a motor vehicle, enabling novice drivers to gain more experience under a greater variety of driving conditions. Both Class 5 and Class 6 licences have a GDL stage associated with them.
- Three stages of GDL: Learner (5/L or 6/L); Intermediate (5/I or 6/I); and, Full (5/F or 6/F).
- To view a full discussion of the GDL program in Manitoba, please visit:
    - http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGuide.pdf; ou en Français,
    - http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGUIDEfr.pdf

The Class Lience System

Chart 2-1 Class Licence System Quick Reference Chart

Manitoba Licence Class	Allows the Licence Holder to Operate	Minimum Age	Requirements
1 	Semi-trailer trucks including all vehicles in Classes 2, 3, 4, and 5.	18	• Must hold a minimum Class 5 Intermediate or Class 5 Authorized Instruction licence to obtain authorized instruction in Classes 1–4. • Must pass written or oral knowledge test. • Requires supervising driver for Authorized Instruction. • Must pass road test. For Classes 1, 2, 3 or 4 (buses and trucks only), the test includes a pre-trip inspection of vehicle (and air brake system if applicable) by the applicant.
2 	Buses[1] having a seating capacity of over 24 passengers (while carrying passengers), school buses[2] having a seating capacity over 36 passengers (while carrying passengers). Includes all vehicles in Classes 3, 4 and 5.		
3 	Trucks with more than two axles, including any combination of vehicles, OR a truck with two axles towing a vehicle with a registered gross vehicle weight of more than 4,540 kg (but does not include a semi-trailer truck). Includes all vehicles in Classes 4 and 5.		
4 	Taxis, ambulances, and other emergency vehicles, buses[1] with a seating capacity between 10 and 24 passengers (while carrying passengers) and school buses[2] with a seating capacity between 10 and 36 passengers (while carrying passengers). Includes all vehicles in Class 5.		
5 	Passenger cars, a bus while not carrying passengers, trucks with two axles, and any combination of vehicles consisting of a truck with two axles and a towed vehicle with a registered gross vehicle weight of **up to** 4,540 kg. May operate Class 3 vehicles if registered as a farm truck and the driver holds a Class 5 Intermediate or Full Stage Licence. May operate a Moped[3], if 16 years of age or older. Note: *A person must hold a valid minimum Class 5 Intermediate Stage driver's licence to operate a special mobile machine, implement of husbandry or tractor on a provincial highway, or a highway within the municipal boundaries of a city, town, village or urban municipality. For further information please call 204-985-7000 or toll-free 1 800-665-2410.*	16 or 15½ if enrolled in high school driver education course	• Must pass written or oral knowledge and sign tests for Class 5 Learner licence (minimum nine- month Learner Stage). (Must wait seven days for re-tests.) • Requires supervising driver for a Class 5 Learner Stage or Authorized Instruction. • Requires supervising driver for a Class 5 intermediate if carrying more than one passenger between the hours of 12 midnight and 5 a.m. • Must pass road test to advance to the Intermediate Stage (minimum 15-month Intermediate Stage). (Must wait 14 days for re-test).
6	Motorcycles.	16	• Driver must hold a valid licence of any class and stage. • Must pass written or oral knowledge test. (Must wait seven days for re-tests.) • Must obtain Class 6 M Stage licence in order to complete motorcycle training course. The course is required before Learner Stage Licence is issued. (Contact Manitoba Safety Council for motorcycle course charges.) • Minimum nine-month Learner Stage. • Must pass road test to advance to the Intermediate Stage (minimum 15–months Intermediate Stage). (Must wait 14 days for re-test.)
Air Brake Endorsement	Air Brake Endorsement—permits the holder to drive vehicles equipped with Air Brakes in the class of vehicle for which the person is licenced. Drivers of a Class 3 truck registered as a farm truck equipped with air brakes are exempt from this requirement.		• Must pass written or oral test. • Must pass Air Brake practical test for "A" (Authorized) endorsement. • Must pass adjustment of the manual slack adjusters for "S" (Slack Adjuster) endorsement. • There is no additional charge for the Air Brake practical test if it is completed at the same time you are road-tested for a higher class of licence.

1. A bus is any vehicle with a seating capacity of at least 11 persons (including the driver) used primarily to carry passengers. It excludes vehicles used for personal transportation by the owner or with the owner's permission.
2. School bus certificate is required. For further information contact the Manitoba Education, Training and Youth, Pupil Transportation at 204-945-6900.
3. Mopeds are not allowed to be driven on highways with a speed limit exceeding 80 km/h, but may cross these highways.

Table 2-1 Class 1-5 Licensed Drivers by Year and Driver Status

Table 2-1

Class 1-5 Licensed Drivers by Year and Driver Status: 2001-2009

Licensing Year	Active Drivers	Suspended Drivers	Total Drivers	% Change to Previous Year
2001	674,921	20,826	695,747	-
2002	679,219	20,950	700,169	0.6%
2003	683,060	20,829	703,889	0.5%
2004	690,568	20,919	711,488	1.1%
2005	695,091	21,077	716,169	0.7%
2006	703,051	21,279	724,330	1.1%
2007*	728,047	24,351	752,398	3.9%
2008	744,049	20,965	765,014	1.7%
2009	**754,485**	**21,724**	**776,209**	1.5%
Average 2004-2008	712,161	21,718	733,880	1.7%

*The count of "Suspended Drivers" in 2007 is artificially inflated due to a system error that was later corrected to recode licences displayed as suspended, but not actually suspended.

Compared to 2008, the total number of licensed drivers in Manitoba in 2009 increased slightly, climbing 1.5% to 776,209. This is in line with historical increases seen in recent years; the rate of change over the past five years (2004-2008) was a 1.7% increase on average each year.

The proportion of suspended drivers increased by four percent in 2009 compared to 2008, up to 21,724 from 20,965, respectively. The count of suspended drivers in 2009 appears to be in line with historical figures in 2008 and prior to 2007. The inflated count of suspended drivers in 2007 was likely due to a system error where several thousand licences were displayed as "suspended" when in fact they were not. This display error has since been corrected.

Table 2-2 Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status

Table 2-2
Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status: 2009

Age Group	Gender	Active Drivers	Suspended Drivers	Total Drivers	% of "All Ages"	% Suspended in Category
16-17	Male	11,079	88	11,166	2.8	0.8
	Female	10,619	22	10,641	2.9	0.2
	Total	21,698	110	21,807	2.8	0.5
18-19	Male	12,567	341	12,908	3.2	2.6
	Female	12,003	76	12,079	3.2	0.6
	Total	24,570	417	24,987	3.2	1.7
20-24	Male	31,244	1,138	32,382	8.0	3.5
	Female	30,143	268	30,411	8.2	0.9
	Total	61,387	1,405	62,793	8.1	2.2
25-34	Male	62,073	2,449	64,522	16.0	3.8
	Female	60,489	567	61,056	16.4	0.9
	Total	122,562	3,016	125,577	16.2	2.4
35-44	Male	67,679	2,490	70,169	17.4	3.5
	Female	65,371	666	66,036	17.7	1.0
	Total	133,049	3,155	136,205	17.5	2.3
45-54	Male	80,700	2,851	83,552	20.7	3.4
	Female	76,238	737	76,975	20.6	1.0
	Total	156,939	3,588	160,527	20.7	2.2
55-64	Male	61,982	1,756	63,738	15.8	2.8
	Female	58,628	535	59,163	15.9	0.9
	Total	120,610	2,291	122,901	15.8	1.9
65-74	Male	35,482	1,224	36,706	9.1	3.3
	Female	32,590	505	33,095	8.9	1.5
	Total	68,071	1,729	69,801	9.0	2.5
75-84	Male	19,660	1,720	21,380	5.3	8.0
	Female	17,814	861	18,675	5.0	4.6
	Total	37,474	2,581	40,055	5.2	6.4
85+	Male	4,424	2,219	6,643	1.6	33.4
	Female	3,702	1,212	4,914	1.3	24.7
	Total	8,125	3,431	11,556	1.5	29.7
All Ages	Male	386,889	16,275	403,165	100.0	4.0
	Female	367,596	5,448	373,044	100.0	1.5
	Total	754,485	21,724	776,209	100.0	2.8

In 2009, the proportion of suspended drivers among those aged 75 or older is more than five times the proportion of suspended drivers among those under age 75 (11.6% of drivers aged 75 or older are suspended; 2.2% of drivers aged 16 to 74 are suspended). This difference in the proportion of suspended drivers between older and younger Manitobans is in line with prior years.

Table 2-3 Class 1-5 Licensed Drivers by License Class, Driver Status and Gender

Table 2-3
Class 1-5 Licensed Drivers by License Class, Driver Status and Gender: 2009

License Class	Active Drivers				Suspended Drivers				Total	%
	Male	Female	SubTotal	%	Male	Female	SubTotal	%		
1	33,959	1,426	35,385	4.7	618	14	632	2.9	36,016	4.6
2	4,740	1,658	6,397	0.8	65	9	74	0.3	6,471	0.8
3	10,204	301	10,505	1.4	182	4	186	0.9	10,691	1.4
4	12,603	4,330	16,933	2.2	357	51	408	1.9	17,340	2.2
5/F	304,442	333,711	638,154	84.6	13,460	4,717	18,177	83.7	656,330	84.6
5/I	8,727	8,407	17,133	2.3	259	60	319	1.5	17,452	2.2
5/L	10,286	14,401	24,687	3.3	311	154	465	2.1	25,151	3.2
5/A	1,920	3,363	5,283	0.7	302	144	446	2.1	5,729	0.7
Other	8	0	8	<0.1	722	298	1,019	4.7	1,027	0.1
Total	386,889	367,596	754,485	100.0	16,275	5,448	21,724	100.0	776,209	100.0

Manitoba Class 5 Driver's Licence Stages:

5/F	Full Class 5 licence (including Full Stage Class 5 under Graduated Driver Licensing)
5/I	Intermediate Stage under Graduated Driver Licensing
5/L	Learner Stage under Graduated Driver Licensing
5/A	Learner drivers who are not in Graduated Driver Licensing
Other	Unlicensed drivers assigned a licence number

The vast majority of Manitobans with a licence hold a Full Class 5 (85%). Novice drivers, holding either Learner (5/L) or an Intermediate (5/I) Stage licence, account for the next largest group (5% of all licensed drivers in Manitoba), closely followed by Class 1 licensed drivers.

Very little has changed in the proportion and number of licence holders by class when comparing 2009 to 2008.

Table 2-4 Class 1-5 Male Drivers by Age Group, Driver Status and License Class

Table 2-4
Class 1-5 Male Drivers by Age Group, Driver Status and License Class: 2009

Age Group	Status	Licence Class										Total
		1	2	3	4	1-4/A	5/F	5/I	5/L	5/A	5 Other	
16-17	Active	0	0	0	0	0	755	4,982	5,342	0	0	11,079
	Suspended	0	0	0	0	0	6	56	25	0	0	88
	Subtotal	0	0	0	0	0	761	5,038	5,367	0	0	11,166
18-19	Active	78	1	23	53	2	8,594	1,923	1,882	12	0	12,567
	Suspended	1	0	0	0	0	220	77	42	0	0	341
	Subtotal	79	1	23	53	2	8,814	2,000	1,924	12	0	12,908
20-24	Active	964	48	348	770	2	26,261	1,016	1,602	233	0	31,244
	Suspended	15	1	7	10	0	822	93	142	45	3	1,138
	Subtotal	979	49	356	780	2	27,084	1,109	1,745	277	3	32,382
25-34	Active	4,923	319	1,287	3,035	3	50,356	514	863	773	0	62,073
	Suspended	81	3	18	45	0	1,880	26	80	117	199	2,449
	Subtotal	5,005	322	1,304	3,080	3	52,236	540	944	890	199	64,522
35-44	Active	8,159	830	1,753	3,269	2	52,614	207	385	460	0	67,679
	Suspended	141	15	24	80	0	1,938	6	17	45	223	2,490
	Subtotal	8,300	845	1,778	3,349	2	54,552	212	402	505	223	70,169
45-54	Active	10,404	1,568	3,350	3,266	0	61,613	70	158	271	0	80,700
	Suspended	157	24	51	103	0	2,307	0	4	32	172	2,851
	Subtotal	10,562	1,593	3,401	3,369	0	63,920	71	162	303	172	83,552
55-64	Active	7,027	1,438	2,577	1,881	0	48,897	14	43	104	0	61,982
	Suspended	121	10	40	72	0	1,436	1	1	15	59	1,756
	Subtotal	7,148	1,448	2,618	1,953	0	50,334	15	44	119	59	63,738
65-74	Active	2,166	481	767	300	0	31,715	1	8	44	0	35,482
	Suspended	70	5	23	30	0	1,073	0	0	7	17	1,224
	Subtotal	2,236	485	790	330	0	32,789	1	8	51	17	36,706
75-84	Active	233	53	95	31	0	19,230	0	2	16	0	19,660
	Suspended	24	6	14	11	0	1,627	0	0	25	13	1,720
	Subtotal	257	59	109	43	0	20,856	0	2	42	13	21,380
85+	Active	5	0	3	0	0	4,407	0	0	8	0	4,424
	Suspended	8	1	4	5	0	2,150	0	0	16	35	2,219
	Subtotal	13	2	7	5	0	6,557	0	0	23	35	6,643
Total	Active	33,959	4,740	10,204	12,603	8	304,442	8,727	10,286	1,920	0	386,889
	Suspended	618	65	182	357	0	13,460	259	311	302	722	16,275
	Total	34,577	4,804	10,386	12,960	8	317,902	8,986	10,597	2,222	722	403,165

Men aged 45 to 54 make up the largest number of licensed drivers in Manitoba (11% of all drivers; 21% of all male drivers). They also account for the largest proportion of suspended drivers under the age of 75 (13% of all suspended drivers), somewhat a reflection of their overall numbers more so than a significantly higher suspension rate. In fact, even though males aged 25 to 34 (11% of all suspended drivers) and 35 to 44 (11% of all suspended drivers) each account for fewer suspended drivers than males aged 45 to 54, their rates of suspension are slightly higher than males aged 45 to 54 (see Table 2-2).

Table 2-5 Class 1-5 Female Drivers by Age Group, Driver Status and License Class

Table 2-5
Class 1-5 Female Drivers by Age Group, Driver Status and License Class: 2009

Age Group	Status	License Class										Total
		1	2	3	4	1-4/A	5/F	5/I	5/L	5/A	5 Other	
16-17	Active	0	0	0	0	0	626	4,384	5,609	0	0	10,619
	Suspended	0	0	0	0	0	1	11	11	0	0	22
	Subtotal	0	0	0	0	0	627	4,394	5,620	0	0	10,641
18-19	Active	2	0	2	17	0	7,765	1,803	2,408	6	0	12,003
	Suspended	0	0	0	0	0	35	22	19	0	0	76
	Subtotal	2	0	2	17	0	7,799	1,825	2,428	6	0	12,079
20-24	Active	30	6	16	313	0	25,792	1,056	2,527	404	0	30,143
	Suspended	0	0	0	2	0	159	16	71	19	0	268
	Subtotal	30	6	16	315	0	25,951	1,072	2,598	424	0	30,411
25-34	Active	173	127	42	1,229	0	54,797	723	2,027	1,371	0	60,489
	Suspended	1	0	0	6	0	387	6	38	63	65	567
	Subtotal	174	128	42	1,236	0	55,184	729	2,065	1,434	65	61,056
35-44	Active	441	408	49	1,267	0	60,858	324	1,201	824	0	65,371
	Suspended	6	1	0	11	0	531	4	11	16	87	666
	Subtotal	447	409	49	1,277	0	61,388	327	1,212	840	87	66,036
45-54	Active	494	687	76	1,106	0	72,807	96	479	495	0	76,238
	Suspended	5	4	2	17	0	622	1	1	9	78	737
	Subtotal	499	690	78	1,122	0	73,42[illegible]	96	480	504	78	76,975
55-64	Active	254	372	92	362	0	57,[illegible]	18	121	202	0	58,628
	Suspended	2	3	1	8	0	48[illegible]	0	2	6	30	535
	Subtotal	256	374	92	370	0	57,692	18	123	208	30	59,163
65-74	Active	31	58	22	35	0	32,387	4	23	31	0	32,590
	Suspended	0	1	1	2	0	479	0	0	6	15	505
	Subtotal	31	59	23	37	0	32,866	4	23	37	15	33,095
75-84	Active	1	0	2	2	0	17,779	1	6	22	0	17,814
	Suspended	0	1	0	5	0	828	0	1	13	13	861
	Subtotal	1	1	2	7	0	18,607	1	7	36	13	18,675
85+	Active	0	0	0	0	0	3,694	0	0	8	0	3,702
	Suspended	0	0	0	0	0	1,191	0	0	11	10	1,212
	Subtotal	0	0	0	0	0	4,885	0	0	19	10	4,914
Total	Active	1,426	1,658	301	4,330	0	333,711	8,407	14,401	3,363	0	367,596
	Suspended	14	9	4	51	0	4,717	60	154	144	298	5,448
	Total	1,439	1,667	305	4,380	0	338,428	8,466	14,554	3,507	298	373,044

Women aged 45 to 54 make up the largest number of licensed female drivers in Manitoba (10% of all drivers; 21% of all female drivers).

Women account for only 25% of all suspended drivers in Manitoba, even though they account for nearly half (48%) of all licensed drivers. Much different than men, the highest numbers of suspended drivers among women are aged 75 and older.

Table 2-6 Total Class 6 Active Licensed Drivers by Year

Table 2-6
Total Class 6 Active Licensed Drivers by Year: 2001 to 2009

Licensing Year	Active Drivers	% Change to Previous Year
2001*	46,784	-
2002*	46,905	-
2003	51,569	-
2004	52,702	2.2%
2005	54,005	2.5%
2006	54,642	1.2%
2007	56,825	4.0%
2008	58,486	2.9%
2009	**60,105**	**2.8%**
Average 2004-2008	55,332	2.6%

* Counts in 2001 and 2002 are not directly comparable to counts in 2003 through 2008. Percentage change to previous year is not calculated due to a change in the methodology.

The number of motorcycle licence holders increased by 2.8% between 2008 and 2009, slightly ahead of the annual average rate of change from 2004 through 2008 (2.6%).

As discussed in the Introduction of this section, Class 6 Motorcycle licence holders in Manitoba also hold a Class 1-5 licence due to a requirement for those wishing to obtain a Class 6 licence to first obtain a licence in any other class (1-5). Because of this, Class 6 licence holders are counted separately to avoid any duplication of counts with Class 1-5 licence holders.

Also, because a licence suspension is applicable to all licence classes held by a suspended driver, suspended Class 6 licences are not counted or addressed in the following discussion; they have been covered in the previous discussions of suspended Class 1-5 licence holders.

Table 2-7 Class 6 Active Licensed Drivers by Age Group, Gender and Driver Status

Table 2-7
Class 6 Active Licensed Drivers by Age Group and Gender:
2009

Age Group	Gender	Active Drivers	%
16-17	Male	125	
	Female	18	
	Total	144	0.2
18-19	Male	361	
	Female	35	
	Total	396	0.7
20-24	Male	2,033	
	Female	278	
	Total	2,311	3.8
25-34	Male	5,744	
	Female	920	
	Total	6,664	11.1
35-44	Male	10,007	
	Female	1,408	
	Total	11,415	19.0
45-54	Male	19,130	
	Female	2,510	
	Total	21,639	36.0
55-64	Male	12,584	
	Female	1,384	
	Total	13,968	23.2
65-74	Male	2,468	
	Female	216	
	Total	2,683	4.5
75-84	Male	717	
	Female	66	
	Total	783	1.3
85+	Male	97	
	Female	5	
	Total	102	0.2
All Ages	Male	53,266	
	Female	6,839	
	Total	60,105	100.0

Men account for nearly 9 in 10 of all Class 6 licence holders (89% overall). The vast majority of Class 6 licence holders are between the ages 35 and 64 (78%). Not surprising then, men aged 35 to 64 make up 69% of all Class 6 licence holders. Women in the same age group (aged 35 to 64) make up only 9%.

Table 2-8 Class 6 Active Licensed Drivers by License Class, Driver Status and Gender

Table 2-8
Class 6 Active Licensed Drivers by License Class and Gender: 2009

License Class	Active Drivers			
	Male	Female	Total	%
6/F	45,087	4,592	49,679	82.7
6/I	7	0	7	<0.1
6/L	4,499	1,413	5,912	9.8
6/A	2,164	331	2,495	4.2
6/M	1,508	504	2,011	3.3
Total	53,266	6,839	60,105	100.0

Manitoba Class 6 Driver's Licence Stages

6/F	Full Class 6 licence (including Full Stage Class 6 under Graduated Driver Licensing)
6/I	Intermediate Stage under Graduated Driver Licensing
6/L	Learner Stage under Graduated Driver Licensing
6/A	Learner drivers who are not in Graduated Driver Licensing
6/M	Licence received after passing written test, entitling holder to take the Motorcycle Training Course

Under Manitoba's Graduated Driver Licensing (GDL) program, novice drivers are only required to complete the Intermediate Stage once. Credit for time served in the Intermediate Stage in Class 5 is given for the Intermediate Stage in Class 6, and vice versa. That is, if a novice driver completes the Intermediate stage of the GDL program for a Class 5 licence, they do not need to repeat the Intermediate stage in order to obtain a Class 6 licence.

In 2009, Full Class 6 licence holders account for 83% of all Manitoba Class 6 licence holders and Learners under the Graduated Driver Licensing program account for 10%. This distribution is similar to 2008.

Table 2-9 Active Class 6 Male Drivers by Age Group and License Class

Table 2-9
Active Class 6 Male Drivers by Age Group and License Class: 2009

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	5	6	77	0	37	125	0.2
18-19	47	1	204	1	109	361	0.7
20-24	486	0	1,073	42	433	2,033	3.8
25-34	2,774	0	1,606	806	558	5,744	10.8
35-44	8,305	0	739	772	192	10,007	18.8
45-54	18,107	0	514	390	119	19,130	35.9
55-64	12,196	0	236	114	39	12,584	23.6
65-74	2,371	0	48	33	16	2,468	4.6
75-84	702	0	5	5	5	717	1.3
85+	95	0	0	2	1	97	0.2
Total	45,087	7	4,499	2,164	1,508	53,266	

Table 2-10 Active Class 6 Female Drivers by Age Group and License Class

Table 2-10
Active Class 6 Female Drivers by Age Group and License Class: 2009

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	0	0	9	0	9	18	0.3
18-19	1	0	22	0	13	35	0.5
20-24	37	0	156	3	82	278	4.1
25-34	271	0	417	82	151	920	13.5
35-44	789	0	408	116	95	1,408	20.6
45-54	1,970	0	339	94	107	2,510	36.7
55-64	1,248	0	59	33	44	1,384	20.2
65-74	207	0	1	3	4	216	3.2
75-84	65	0	0	1	0	66	1.0
85+	5	0	0	0	0	5	<0.1
Total	4,592	0	1,413	331	504	6,839	

SECTION 3 – Vehicle Registrations

Introduction

This section deals with vehicle registrations and examines these by three major categories: Commercial; Non-commercial; and, Snowmobiles (Recreational).

Key Highlights

There are a total of 824,824 Non-commercial vehicles registered in Manitoba in 2009.

- This is a 2.0% increase over 2008 and a 13.9% increase over 2002.
- This is a 6.8% increase over the average registrations for the period 2004-2008.

There are a total of 85,909 Commercial vehicles registered in Manitoba in 2009.

- Although this is relatively unchanged from last year (a 0.1% increase over 2008), this is a 22.5% increase over 2002.
- This is a 9.7% increase over the average registrations for the period 2004-2008.

Overall, there is a 1.8% increase in the total vehicle registrations (commercial and non-commercial, combined) in Manitoba in 2009 over 2008.

There are a total of 27,664 Snowmobiles registered in Manitoba in 2009.

- This is a 4.9% increase over 2008 and a 49.7% increase over 2002.
- This is a 26.0% increase over the average registrations for the period 2004-2008.

Major Elements Examined

Counts for each Commercial and Non-commercial registration types represent an average registration over the twelve-month period January through December 2009. That is, active vehicle registrations as of the first of each month are recorded for each vehicle category and then an average for the year is calculated and reported. Counts for Snowmobiles use a similar "point-in-time" average calculation, but include December 2008 through to and including April 2009 to cover the snowmobile riding season.

Terms and Definitions

"Vehicle Class"

- Category of vehicles meeting specific designations and specifications
- Non-commercial vehicle classes are vehicles registered for private use and include:
  - Passenger
  - Antique
  - Motorcycle/Moped
  - Truck
  - Farm Truck
  - Snow Vehicle
  - Trailer
  - Tractor (non-farm)
- Commercial vehicle classes are those involving vehicles registered to or for the use of a business and include:
  - Truck
  - Public Service Vehicles (PSV) Truck
  - Dealer/Repairer
  - Taxi/Livery
  - PSV Bus
  - Trailers
  - PSV Trailers
- A detailed description of each class noted above can be found in the "Glossary" of the Report

Table 3-1 Non Commercial Vehicle Class

Table 3-1
Non-Commercial Vehicle Class: 2009

Vehicle Class*	Total	%
Passenger	516,185	62.6
Antique	77	<0.1
Motorcycle/Moped	10,413	1.3
Truck	127,154	15.4
Farm Truck	43,746	5.3
Snow Vehicle	49	<0.1
Trailer	127,080	15.4
Tractor (Other than Farm-type)	122	<0.1
Total Non-Commercial Vehicles Registered	**824,824**	**100.0**
Snowmobiles (Recreational)		
Snowmobiles	27,664	

*For definition of these motor vehicle classes refer to the "Terms and Definitions" of this Section and "Glossary" of this Report.

Table 3-2 Commercial Vehicle Class

Table 3-2
Commercial Vehicle Class: 2009

Vehicle Class*	Total	%
Commercial Truck	26,851	31.3
Public Service Vehicle (PSV) Truck	9,818	11.4
Dealer and Repairer	6,347	7.4
Taxi/Livery/Limousine	834	1.0
Public Service Vehicle (PSV) Bus	155	0.2
Commercial Trailer	41,846	48.7
Public Service Vehicle (PSV) Trailer	57	<0.1
Total Commercial Vehicles Registered	**85,909**	**100.0**

*For definition of these motor vehicle classes refer to the "Terms and Definitions" of this Section and "Glossary" of this Report.

Table 3-3 Vehicle Registration Summary

Table 3-3
Vehicle Registrations Summary: 2002 to 2009

Registration Class	2002	2003	2004	2005	2006	2007	2008	5-year (2004-2008) Average	2009	% Change 2008-2009	% Change (2009 vs. 2004-2008 average)
Non-Commercial Vehicle Class											
Passenger	469,420	476,834	483,274	487,158	491,363	499,078	509,856	494,146	**516,185**	1.2	4.5
Antique**	83	79	71	74	80	82	84	78	**77**	-8.5	-1.9
Motorcycle/Moped	6,677	7,210	7,339	7,605	8,357	9,143	10,059	8,501	**10,413**	3.5	22.5
Truck	112,549	113,302	114,818	115,755	117,278	120,217	123,766	118,367	**127,154**	2.7	7.4
Farm Truck	48,971	48,370	47,650	46,512	45,083	44,477	44,073	45,559	**43,746**	-0.7	-4.0
Snow Vehicle**	59	55	52	49	48	49	47	49	**49**	3.2	-0.6
Trailer	85,986	88,375	92,396	97,684	103,840	111,630	120,891	105,288	**127,080**	5.1	20.7
Tractor (non-farm)	144	140	131	122	125	120	117	123	**122**	4.4	-1.0
Subtotal	723,889	734,365	745,731	754,959	766,174	784,796	808,892	772,110	**824,824**	2.0	6.8
Commercial Vehicle Class											
Truck	22,798	23,130	23,520	23,833	24,305	24,987	26,123	24,554	**26,851**	2.8	9.4
PSV Truck	6,907	7,366	8,313	8,988	9,526	10,115	9,863	9,361	**9,818**	-0.5	4.9
Dealer/Repairer	7,238	6,987	6,644	6,561	6,512	6,511	6,546	6,555	**6,347**	-3.0	-3.2
Taxi/Livery	747	735	756	764	772	769	778	768	**834**	7.3	8.6
PSV Bus**	139	135	132	135	134	143	146	138	**155**	6.0	12.4
Trailers*	32,273	30,022	33,073	33,453	37,226	38,183	42,304	36,848	**41,846**	-1.1	13.6
PSV Trailers**	44	57	57	54	58	56	51	55	**57**	10.2	2.3
Subtotal	70,146	68,432	72,495	73,788	78,533	80,764	85,811	78,278	**85,909**	0.1	9.7
Total Registrations	**794,035**	**802,797**	**818,226**	**828,747**	**844,707**	**865,560**	**894,703**	**850,389**	**910,732**	**1.8**	**7.1**
Snowmobiles* **											
Total	18,483	18,647	19,321	19,852	20,832	23,401	26,359	21,953	**27,664**	4.9	26.0
Off-Road Vehicle Dealer Plates											
Total	378	415	417	398	446	429	473	433	**464**	-2.0	7.1

*Commercial trailers include semi-trailers.

**Due to small numbers, percentage change figures are expected to be somewhat erratic year-over-year and should be interpreted with extreme caution.

***Snowmobile registration count reflects the average number of active policies at a point in time during the riding season, from December to April (e.g., for 2008, December 2008 through April 2009, inclusive).

Over the previous five years (2004 to 2008), total vehicle registrations (excluding snowmobiles) have increased by an average of 2.2% each year. In 2009, total vehicle registrations are on par with this rate of change, increasing by 1.8% compared to 2008.

The total increase in overall vehicle registrations in 2009 is primarily an increase in non-commercial vehicle registrations. These classes of vehicles saw a total increase of 2.0% in 2009 over 2008. The count of registrations in commercial vehicle classes is relatively unchanged, increasing by 0.1% in 2009 over 2008.

Snowmobile registrations increased by 4.9% in 2009 over 2008 and by 26.0% compared to the 5-year (2004-2008) average registrations.

SECTION 4 – Traffic Collisions

Introduction

This section counts the number of collisions in Manitoba and provides detail for collisions of different severity; fatal, injury and property damage only (PDO). Historical information regarding the number of collisions, the number of victims, the number of vehicles and the number of drivers involved in collisions over the ten year period 1999 to 2008 is presented. Details are provided for 2009 traffic collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Key Highlights
In 2009, there were 26,578 collisions involving 7,302 victims, 43,610 vehicles and 41,097 drivers. Of these:

- 83 were fatal collisions, with 86 victims killed and 75 victims injured, and involving 126 vehicles and 120 drivers;
- 5,396 were injury collisions, with 7,141 victims injured and involving 9,268 vehicles and 8,938 drivers; and,
- 21,099 were PDO collisions, involving 34,216 vehicles and 32,039 drivers.

Collisions most frequently occur:

- In Winnipeg (57% of all collisions; 12% of fatal, 64% of injury and 55% of PDO collisions) and in rural areas (26% of all collisions, 78% of fatal, 24% of injury and 26% of PDO collisions);
- In the winter months (January, February and December) – 32% of all collisions; 23% of fatal, 29% of injury and 33% of PDO collisions;
- On the weekend (all day Friday, Saturday and Sunday) – 41% of all collisions; 46% of fatal, 41% of injury and 41% of PDO collisions;
- On Fridays – 17% of all collisions; 18% of fatal, 17% of injury and 17% of PDO collisions; and
- Between the hours of 3 and 6 p.m. (15:00 to 17:59) – 23% of all collisions; 15% of fatal, 26% of injury and 22% of PDO collisions.

The majority of collisions:

- Are "motor vehicle to motor vehicle" in nature – 69% of all collisions; 37% of fatal, 66% of injury and 69% of PDO collisions; and,
- Are "rear end" collisions (36% of all collisions), collisions occurring at 90° intersections (18% of all collisions), side-swipe collisions (11% of all collisions), collisions associated with turning (10% of all collisions) and collisions resulting from leaving the road (9% of all collisions).

Major Elements Examined
Counts of collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

Collisions, victims, vehicles and drivers are presented separately at the beginning of this section with historical counts provided for the years 1999 through 2009. Following that, the majority of this section explores traffic collisions occurring in 2009 and provides average counts of collisions for the time period 2004 to 2008 as a comparison to 2009 collisions.

The reader is cautioned that counts of collisions from 2003 to 2009 uses a methodology slightly different than that employed in 1999 to 2002. Counts of all collisions in 2003 to 2009 have been taken from an improved verification process, i.e., the data was examined for consistency and accuracy and duplicate records have been removed. Counts of collisions in 1999 to 2002 had a similar verification process employed, but only for fatal collisions. This process is refined again in 2009; data from 2003 to 2009 has been adjusted to reflect a single consistent process, resulting in minor differences to 2008 published report.

It is important to note that the number of collisions is not equal to the number of victims as each collision can result in multiple victims. Likewise, the number of vehicles involved is not equal to the number of drivers involved as a driverless vehicle (e.g., a parked car; vehicles that do not have a licensed driver) could be involved in a collision.

"Drivers" in this section refers to the number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report.

The terms 'fatally injured' and 'killed' are used interchangeably in this report.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Urban Location"

- Collisions occurring within the municipal boundaries of urban areas, including Winnipeg, Brandon, Portage la Prairie, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and others.

"Rural Location"

- Collisions occurring on primary highways, secondary highways and local roadways, including the Trans Canada Highway and excluding those that occur within the municipal boundaries of an urban area.

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes collisions involving more than one configuration or sequence of events.

Table 4-1 Ten Year Summary of Traffic Collisions

Table 4-1

Historical Summary of Traffic Collisions: 1999 to 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	**2009**	2004-2008 Average
Total Collisions	28,667	30,973	30,999	31,983	34,771	35,002	33,164	31,738	29,494	27,092	**26,578**	31,298
Fatal	99	92	82	99	95	90	88	104	96	85	**83**	93
Injury	6,959	6,931	6,656	6,953	7,273	6,855	6,482	6,503	6,415	5,974	**5,396**	6,446
PDO	21,609	23,950	24,261	24,931	27,403	28,057	26,594	25,131	22,983	21,033	**21,099**	24,760
Total Victims	9,810	9,596	9,096	9,642	9,821	9,314	8,753	8,825	8,632	7,924	**7,302**	8,690
Killed	113	111	94	109	102	99	113	119	109	92	**86**	106
Injured	9,697	9,485	9,002	9,533	9,719	9,215	8,640	8,706	8,523	7,832	**7,216**	8,583
Total Vehicles Involved	48,457	52,810	51,123	52,829	57,280	57,219	54,343	51,620	48,491	44,555	**43,610**	51,246
Fatal	157	140	138	156	142	131	135	151	141	141	**126**	140
Injury	12,543	12,362	11,770	12,384	12,750	12,090	11,489	11,312	11,099	10,219	**9,268**	11,242
PDO	35,757	40,308	39,215	40,289	44,388	44,998	42,719	40,157	37,251	34,195	**34,216**	39,864
Total Drivers Involved	44,862	48,859	46,324	48,082	52,403	52,013	48,898	46,380	44,814	42,120	**41,097**	46,845
Fatal	151	136	127	149	138	127	126	145	135	121	**120**	131
Injury	12,096	11,943	11,377	11,957	12,248	11,647	11,044	10,827	10,696	9,854	**8,938**	10,814
PDO	32,615	36,780	34,820	35,976	40,017	40,239	37,728	35,408	33,983	32,145	**32,039**	35,901

In 2009, there were 26,578 collisions involving 7,302 victims, 43,610 vehicles and 41,097 drivers. Of these:

- 83 were fatal collisions, with 86 victims killed and 75 victims injured, and involving 126 vehicles and 120 drivers;
- 5,396 were injury collisions, with 7,141 victims injured and involving 9,268 vehicles and 8,938 drivers; and,
- 21,099 were PDO collisions, involving 34,216 vehicles and 32,039 drivers.

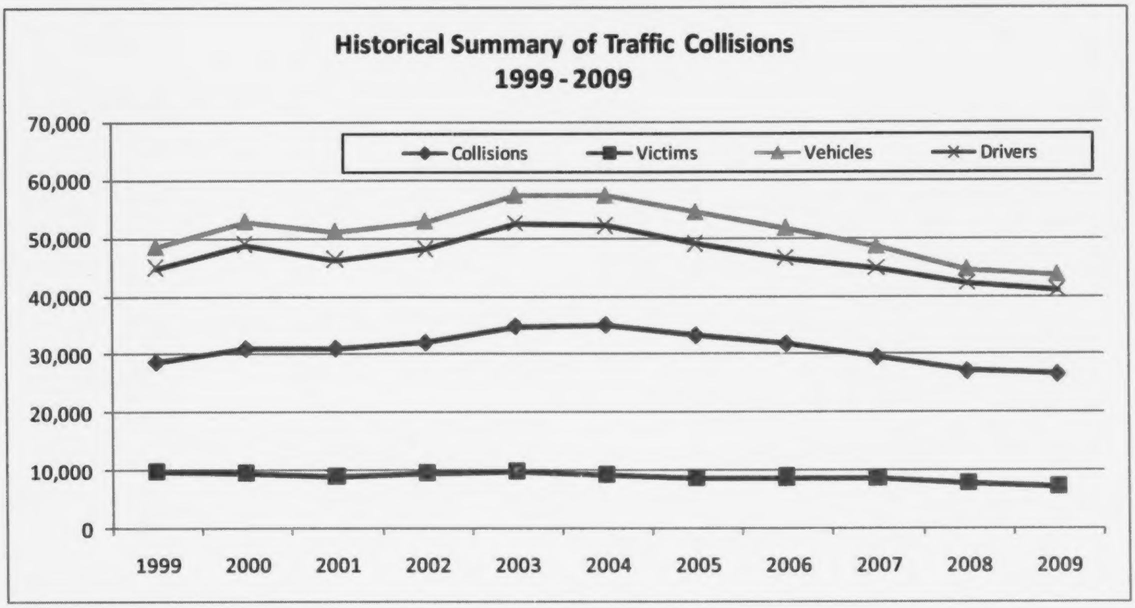
Total collisions in 2009 are 2% lower than in 2008 and 15% lower than the number of collisions in the previous five years (2004 to 2008) on average.

- Fatal collisions declined by 2% compared to 2008 and by 10% compared to the previous five year average.
- Injury collisions declined by nearly 10% compared to 2008 and by 16% compared to the previous five year average.
- PDO collisions were relatively unchanged, increasing by about a third of a percent (0.3%) compared to 2008, but still 15% lower than the previous five year average.

There are about 8% fewer victims in 2009 than in 2008 and 16% fewer than in the previous five year average.

There are 2% fewer drivers involved in collisions in 2009 than in 2008 and 12% fewer than in the previous five year average.

Figure 4-1 Historical Summary – Count of Traffic Collisions, Victims, Vehicles and Drivers



2009 represents the fifth year in a row where the total number of collisions has dropped. This steady decline is mirrored in a decline in the number of vehicles and drivers involved in collisions over the same time period. Prior to 2005, the total number of collisions had either held steady or actually increased year-over-year.

While the total number of victims involved in collisions has declined somewhat more slowly than total collisions, 2009 represents the seventh year in the last eleven where a decline in the total count has been recorded compared to the previous year. The total number of victims involved in collisions in 2009 is the lowest it's been in the last eleven years.

Table 4-2 Traffic Collisions by Month of Occurrence and Collision Severity

Table 4-2
Traffic Collisions by Month of Occurrence and Collision Severity: 2009, 2004-2008 Average

Month	2009 Collision Severity						2009 Total	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
January	7	8.4%	624	11.6%	2,629	12.5%	**3,260**	12.3%	5	691	3,084	3,780	12.1%
February	2	2.4%	484	9.0%	1,859	8.8%	**2,345**	8.8%	5	563	2,371	2,939	9.4%
March	5	6.0%	471	8.7%	1,834	8.7%	**2,310**	8.7%	5	529	2,059	2,593	8.3%
April	6	7.2%	369	6.8%	1,333	6.3%	**1,708**	6.4%	5	410	1,505	1,920	6.1%
May	3	3.6%	369	6.8%	1,380	6.5%	**1,752**	6.6%	7	475	1,606	2,088	6.7%
June	9	10.8%	481	8.9%	1,479	7.0%	**1,969**	7.4%	8	537	1,846	2,392	7.6%
July	7	8.4%	429	8.0%	1,504	7.1%	**1,940**	7.3%	9	505	1,670	2,184	7.0%
August	12	14.5%	383	7.1%	1,400	6.6%	**1,795**	6.8%	10	511	1,587	2,108	6.7%
September	7	8.4%	470	8.7%	1,519	7.2%	**1,996**	7.5%	10	520	1,745	2,275	7.3%
October	10	12.0%	460	8.5%	1,890	9.0%	**2,360**	8.9%	12	567	2,060	2,639	8.4%
November	5	6.0%	424	7.9%	1,893	9.0%	**2,322**	8.7%	10	548	2,480	3,038	9.7%
December	10	12.0%	432	8.0%	2,379	11.3%	**2,821**	10.6%	6	589	2,746	3,341	10.7%
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

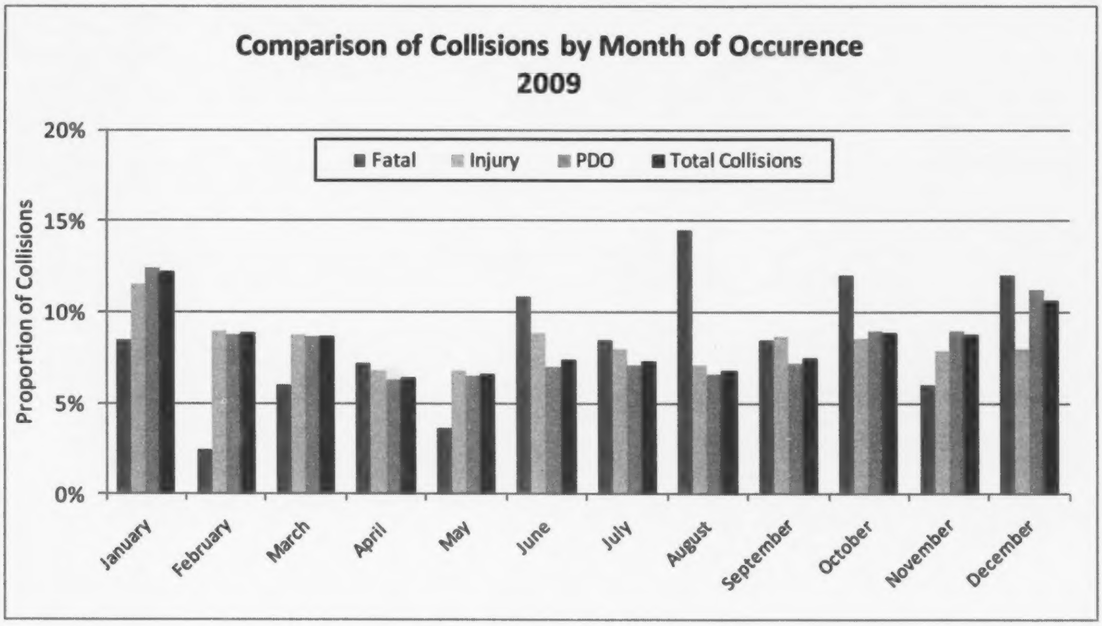
As has been the case in the past, the winter months of January, February and December accounted for a third (32%) of all collisions in Manitoba in 2009. In the previous five year period (2004-2008), these months accounted for an average of 32% of all collisions. In 2009, January, February and December, combined, account for:

- 23% of all fatal collisions;
- 29% of all injury collisions; and,
- 33% of all PDO collisions.

Fatal collisions continue to be occur from most often in June to October. In 2009, 54% of fatal collisions occurred between June and October, compared to 53% in the previous five year average.

- 41% of injury collisions occur from June to October in 2009 and in the previous five years.
- 37% of PDO collisions occur from June to October in 2009 and 36% in the previous five years.

Figure 4-2 Traffic Collisions by Month of Occurrence and Collision Severity



The months of August and October, combined, accounted for more than a quarter (27%) of all fatal collisions occurring in Manitoba in 2009. When comparing monthly totals in 2009 to the previous five year average, some variation in the distribution of fatal collisions is noticeable. December 2009 saw four more fatal collisions than the five year average, with November seeing a decrease of five compared to the five year average.

In 2009, PDO collisions occurred most frequently in the months of January (13% of PDO collisions) and December (11%). This was also the case in the previous five year period on average.

Table 4-3 Traffic Collisions by Day of Occurrence and Collision Severity

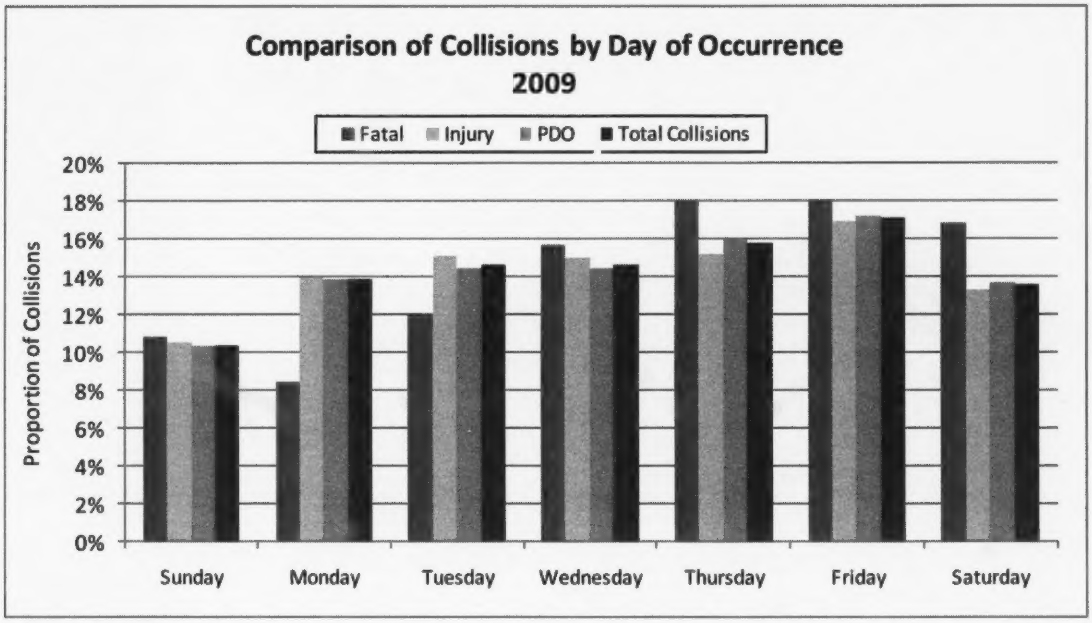
Table 4-3
Traffic Collisions by Day of Week of Occurrence and Collision Severity: 2009, 2004-2008 Average

Day of Week	2009 Collision Severity						2009 Total	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Sunday	9	10.8%	567	10.5%	2,182	10.3%	**2,758**	10.4%	18	677	2,657	3,352	10.7%
Monday	7	8.4%	752	13.9%	2,922	13.8%	**3,681**	13.8%	9	918	3,373	4,300	13.7%
Tuesday	10	12.0%	816	15.1%	3,059	14.5%	**3,885**	14.6%	8	962	3,582	4,553	14.5%
Wednesday	13	15.7%	811	15.0%	3,059	14.5%	**3,883**	14.6%	11	955	3,555	4,522	14.4%
Thursday	15	18.1%	820	15.2%	3,364	15.9%	**4,199**	15.8%	11	1,015	3,673	4,699	15.0%
Friday	15	18.1%	914	16.9%	3,628	17.2%	**4,557**	17.1%	14	1,082	4,391	5,487	17.5%
Saturday	14	16.9%	716	13.3%	2,885	13.7%	**3,615**	13.6%	20	836	3,529	4,385	14.0%
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

As shown in Table 4-3, overall, Friday accounts for the single largest proportion of collisions in 2009; this is also the case in the previous five years (2004 to 2008) on average. Friday accounts for:

- 17% of all collisions in 2009 and nearly 18% in the previous five years;
- 18% of fatal collisions in 2009 and 16% in the previous five years;
- 17% of injury collisions in 2009 and in the previous five years; and,
- 17% of PDO collisions in 2009 and nearly 18% in the previous five years.

Figure 4-3 Traffic Collisions by Day of Occurrence and Collision Severity



Weekends, defined as all day Friday, Saturday and Sunday, combined, account for:

- 41% of all collisions in 2009 and 42% in the previous five years;
- 46% of fatal collisions in 2009 and 57% in the previous five years;
- 41% of injury collisions in 2009 and 40% in the previous five years; and,
- 41% of PDO collisions in 2008 and 43% in the previous five years.

In 2009, fatal collisions happen most often on Thursdays and Fridays (count of 15 or 18% of fatal collisions, on each day). In the previous five years (2004 to 2008) on average, fatal collisions typically happen more often on Saturday and Sunday than any other day of the week. Sundays account for 11% of all fatal collisions in 2009 (count of 9) and 19% of all fatal collisions in the five year period 2004-2008 on average. Saturdays account for 17% of fatal collisions in 2009 (count of 14) and 22% of all fatal collisions in the previous five years on average.

Table 4-4 Traffic Collisions by Time of Occurrence and Collision Severity

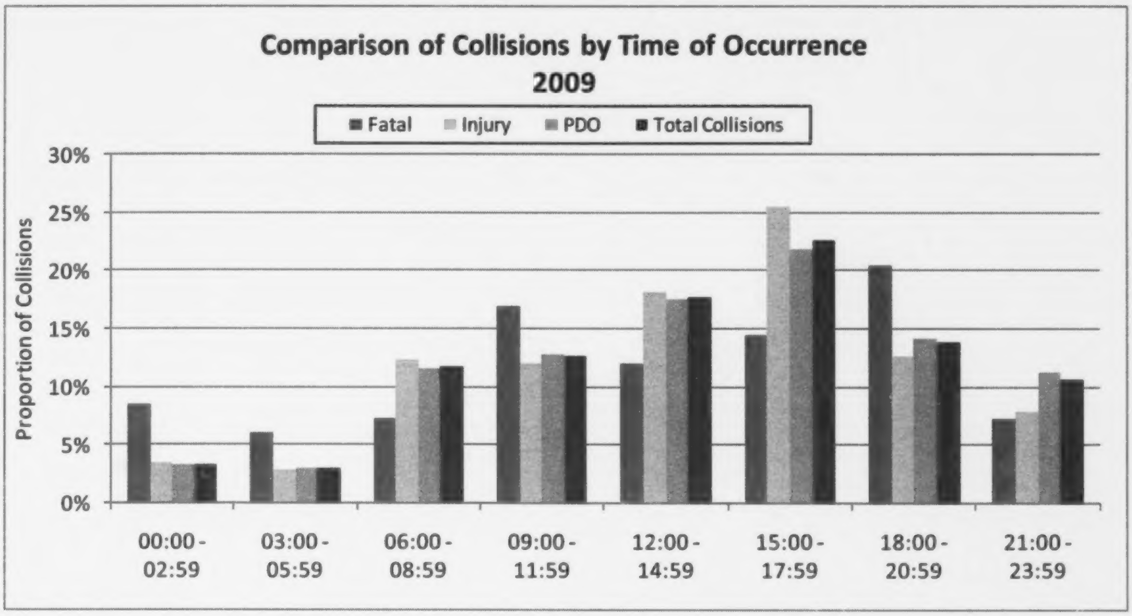
Table 4-4
Traffic Collisions by Time of Occurrence and Collision Severity: 2009, 2004-2008 Average

Time	2009 Collision Severity						2009 Total	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
00:00 - 02:59	7	8.4%	183	3.4%	698	3.3%	**888**	3.3%	8	207	825	1,041	3.3%
03:00 - 05:59	5	6.0%	153	2.8%	629	3.0%	**787**	3.0%	9	154	653	817	2.6%
06:00 - 08:59	6	7.2%	667	12.4%	2,425	11.5%	**3098**	11.7%	9	749	2,554	3,312	10.6%
09:00 - 11:59	14	16.9%	649	12.0%	2,684	12.7%	**3347**	12.6%	8	817	3,175	4,000	12.8%
12:00 - 14:59	10	12.0%	981	18.2%	3,698	17.5%	**4689**	17.6%	13	1,232	4,590	5,835	18.6%
15:00 - 17:59	12	14.5%	1,377	25.5%	4,624	21.9%	**6013**	22.6%	14	1,654	5,571	7,239	23.1%
18:00 - 20:59	17	20.5%	686	12.7%	2,987	14.2%	**3690**	13.9%	13	807	3,442	4,262	13.6%
21:00 - 23:59	6	7.2%	429	8.0%	2,383	11.3%	**2818**	10.6%	12	528	2,746	3,285	10.5%
Not Stated	6	7.2%	271	5.0%	971	4.6%	**1248**	4.7%	6	298	1,204	1,508	4.8%
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

As shown in Table 4-4, the largest proportion of total traffic collisions in 2009 occurred between 3 and 6 p.m., what may be considered the afternoon rush. Nearly a quarter (23%) of all collisions occurred during these hours (15% of fatal collisions, 26% of injury collisions and 22% of PDO collisions). This is consistent with the proportion of collisions occurring during these hours in the previous five years (2004 to 2008) on average.

Four in ten collisions in 2009 occurred between noon and 6 p.m. (40% of all collisions, 27% of fatal collisions, 44% of injury collisions and 39% of PDO collisions). Again, this is fairly consistent with the proportion of collisions occurring during these hours in the previous five years (2004 to 2008) on average.

Figure 4-4 Traffic Collisions by Time of Occurrence and Collision Severity



A disproportionate number of fatal collisions occurred in 2009 between the hours of midnight and 3 a.m.; 15% of all fatal collisions compared to only 6% of all collisions overall. The proportion of fatal collisions occurring between midnight and 3 a.m. is nearly equal to the portion of fatal collisions occurring in each three hour block beginning at 9 a.m. and ending at midnight, the time when most collisions, regardless of severity, occur.

Table 4-5 Traffic Collisions by Provincial Location and Collision Severity

Table 4-5

Traffic Collisions by Provincial Location and Collision Severity: 2009, 2004-2008 Average

Location	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Winnipeg	10	12.0%	3,445	63.8%	11,603	55.0%	**15,058**	56.7%	19	4,290	13,475	17,783	56.8%
Brandon	1	1.2%	192	3.6%	1,006	4.8%	**1,199**	4.5%	1	219	1,243	1,462	4.7%
Portage	0	-	28	0.5%	289	1.4%	**317**	1.2%	1	55	359	415	1.3%
Flin Flon	0	-	15	0.3%	102	0.5%	**117**	0.4%	-	12	147	159	0.5%
Dauphin	0	-	26	0.5%	142	0.7%	**168**	0.6%	<1	33	190	223	0.7%
Thompson	0	-	27	0.5%	207	1.0%	**234**	0.9%	<1	30	345	375	1.2%
The Pas	0	-	14	0.3%	105	0.5%	**119**	0.4%	<1	16	184	200	0.6%
Selkirk	0	-	39	0.7%	198	0.9%	**237**	0.9%	-	35	267	302	1.0%
Other Urban	7	8.4%	307	5.7%	1,929	9.1%	**2,243**	8.4%	8	420	2,907	3,335	10.7%
All Rural	65	78.3%	1,303	24.1%	5,518	26.2%	**6,886**	25.9%	63	1,337	5,643	7,044	22.5%
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

As shown in Table 4-5, urban areas account for three-quarters (74%) of all collisions in Manitoba, but just less than a quarter of all fatal collisions (22%) in 2009 (76% of injury collisions and 74% of PDO collisions). Rural areas account for a quarter of all collisions (26%), but more than three-quarters of all fatal collisions (78%). This is consistent with historical results. In the previous five year period (2004 to 2008), urban areas accounted for an average of 78% of all collisions, 31% of fatal collisions, 79% of injury collisions and 77% of PDO collisions.

Nearly six in ten (57%) of all traffic collisions in 2009 occurred in Winnipeg while other urban areas accounted for 17% of all collisions. In the previous five year period (2004 to 2008) on average, Winnipeg accounted for 57% of all collisions and other urban areas accounted for 21% of all collisions.

This pattern holds when we consider both injury and PDO collisions.

- In 2009, 64% of injury collisions occurred in Winnipeg, 12% occurred in other urban areas and 24% occurred in rural areas.
- In 2009, 55% of PDO collisions occurred in Winnipeg, 19% occurred in other urban areas and 26% occurred in rural areas.

Fatal collisions represent a marked departure from this overall distribution. In 2009, more than three-quarters (78%) of fatal collisions occur in rural areas, while only 12% occur in Winnipeg and 10% occur in other urban areas. This is consistent with the previous five year period (2004 to 2008) on average, when 68% of fatal collisions occurred in Rural areas, 21% occurred in Winnipeg and 11% occurred in other urban areas.

As shown in Table 4-6, "motor vehicle to motor vehicle" collisions account for the majority of collisions in Manitoba, both in 2009 and in the previous five years (2004 to 2008) on average. In 2009:

- 69% of all collisions are motor vehicle to motor vehicle;
- 37% of fatal collisions are motor vehicle to motor vehicle;
- 66% of injury collisions are motor vehicle to motor vehicle; and,
- 69% of PDO collisions are motor vehicle to motor vehicle.

Collisions occurring in urban areas are predominantly "motor vehicle to motor vehicle" in nature. In urban areas in 2009:

- 86% of all collisions are motor vehicle to motor vehicle;
- 39% of fatal collisions are motor vehicle to motor vehicle;
- 78% of injury collisions are motor vehicle to motor vehicle; and,
- 88% of PDO collisions are motor vehicle to motor vehicle.

Collisions occurring in rural areas are predominantly of the type "motor vehicle to animal", with "ran off roadway" coming in as the second most common configuration and "motor vehicle to motor vehicle" as the third most common. In rural areas in 2009:

- 46% of all collisions are "motor vehicle to animal" in nature (no fatal collisions; 12% of injury collisions; 55% of PDO collisions);
- 23% of all collisions are "ran off roadway" in nature (19% of fatal collisions; 38% of injury collisions; 19% of PDO collisions); and,
- 18% of all collisions are "motor vehicle to motor vehicle" in nature (37% of fatal collisions; 29% of injury collisions; 16% of PDO collisions).

Collisions with pedestrians (only accounting for 1% of all collisions in 2009) account for a very high proportion of fatal collisions in Manitoba; 11% of all fatal collisions in the province were "motor vehicle to pedestrian". In urban areas, 17% of all fatal collisions were the result of motor vehicle hitting a pedestrian. In 2009, nearly 3% of "motor vehicle to pedestrian" collisions resulted in a fatality and 96% resulted in an injury.

Table 4-6 Collision Type by Urban/Rural Location

Table 4-6

Collision Type by Urban/Rural Location: 2009, 2004-2008 Average

Collision Type	Location													2004-2008 Average Count of Total Collisions				
	2009 Urban				2009 Rural				2009 Provincial Total				2009 Provincial Total as % of Total					
	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	**Total**		Fatal	Injury	PDO	Total	% of Total
Collision with pedestrian	3	341	4	348	6	8	0	14	9	349	4	**362**	1.4%	14	430	8	453	1.4%
Collision with other motor vehicle	7	3,198	13,781	16,986	24	379	858	1,261	31	3,577	14,639	**18,247**	68.7%	34	4,344	17,515	21,893	70.0%
Collisions with train	0	1	5	6	2	3	6	11	2	4	11	**17**	<0.1%	2	6	9	17	<0.1%
Collision with motorcycle	1	66	35	102	3	29	5	37	4	95	40	**139**	0.5%	3	105	48	156	0.5%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	0	0	0	0	**0**	-	-	-	1	1	<0.1%
Collision with bicycle	1	222	20	243	0	3	1	4	1	225	21	**247**	0.9%	2	272	26	300	1.0%
Collision with animal	0	11	258	269	0	152	3,042	3,194	0	163	3,300	**3,463**	13.0%	<1	161	3,461	3,622	11.6%
Collision with fixed object	4	169	1,070	1,243	2	67	209	278	6	236	1,279	**1,521**	5.7%	5	266	1,724	1,995	6.4%
Collision with other object	1	13	179	193	3	18	121	142	4	31	300	**335**	1.3%	4	64	398	466	1.5%
Overturned in roadway	0	7	10	17	13	145	157	315	13	152	167	**332**	1.2%	7	140	165	312	1.0%
Ran off roadway	1	64	208	273	12	495	1,065	1,572	13	559	1,273	**1,845**	6.9%	21	646	1,302	1,970	6.3%
Other non-collision	0	1	11	12	0	4	54	58	0	5	65	**70**	0.3%	<1	11	102	113	0.4%
Total	18	4,093	15,581	19,692	65	1,303	5,518	6,886	83	5,396	21,099	**26,578**	100%	93	6,446	24,760	31,298	100%

Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity

Table 4-7

Traffic Collisions by Road Surface Condition and Collision Severity: 2009, 2004-2008 Average

Road Surface Condition	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Dry	56	67.5%	3,206	59.4%	11,995	56.9%	**15,257**	57.4%	63	3,650	13,099	16,812	53.7%
Wet	4	4.8%	548	10.2%	1,915	9.1%	**2,467**	9.3%	8	758	2,311	3,078	9.8%
Mud	1	1.2%	8	0.1%	51	0.2%	**60**	0.2%	<1	9	60	69	0.2%
Snow	6	7.2%	383	7.1%	1,851	8.8%	**2,240**	8.4%	6	497	2,609	3,113	9.9%
Ice	11	13.3%	986	18.3%	4,169	19.8%	**5,166**	19.4%	9	1,138	4,881	6,029	19.3%
Slush	1	1.2%	76	1.4%	210	1.0%	**287**	1.1%	1	95	306	402	1.3%
Loose Sand/Gravel/Dirt	3	3.6%	70	1.3%	168	0.8%	**241**	0.9%	2	91	205	298	1.0%
Fresh Oil	0	-	0	-	2	<0.1%	**2**	<0.1%	-	1	3	4	<0.1%
Other	0	-	0	-	3	<0.1%	**3**	<0.1%	<1	1	1	2	<0.1%
Not Applicable	1	1.2%	111	2.1%	688	3.3%	**800**	3.0%	2	202	1,271	1,475	4.7%
Unknown	0	-	8	0.1%	47	0.2%	**55**	0.2%	-	2	14	16	<0.1%
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

Most collisions in Manitoba occur under "dry" road conditions. More than half (57%) of all collisions in 2009 and 54% of all collisions in the previous five year period (2004 to 2008) on average occurred on "dry" roads.

In 2009, two-thirds of fatal collisions occur on dry roads. In the five year period 2004 to 2008 on average, two-thirds (68%) of fatal collisions occurred on "dry" roads.

Icy road conditions account for 19% of all collisions in 2009, including 13% of fatal collisions, 18% of injury collisions and 20% of PDO collisions. This consistent with the proportion of collisions occurring on icy roads in the five year period 2004 to 2008 on average (19% of all collisions, 10% of fatal collisions, 18% of injury collisions and 19% of PDO collisions).

"Snow" and "wet" account for fairly equal proportions of collisions in 2009, at about 8% and 9%, respectively, of all collisions.

Figure 4-5 Traffic Collisions by Road Surface Condition and Collision Severity

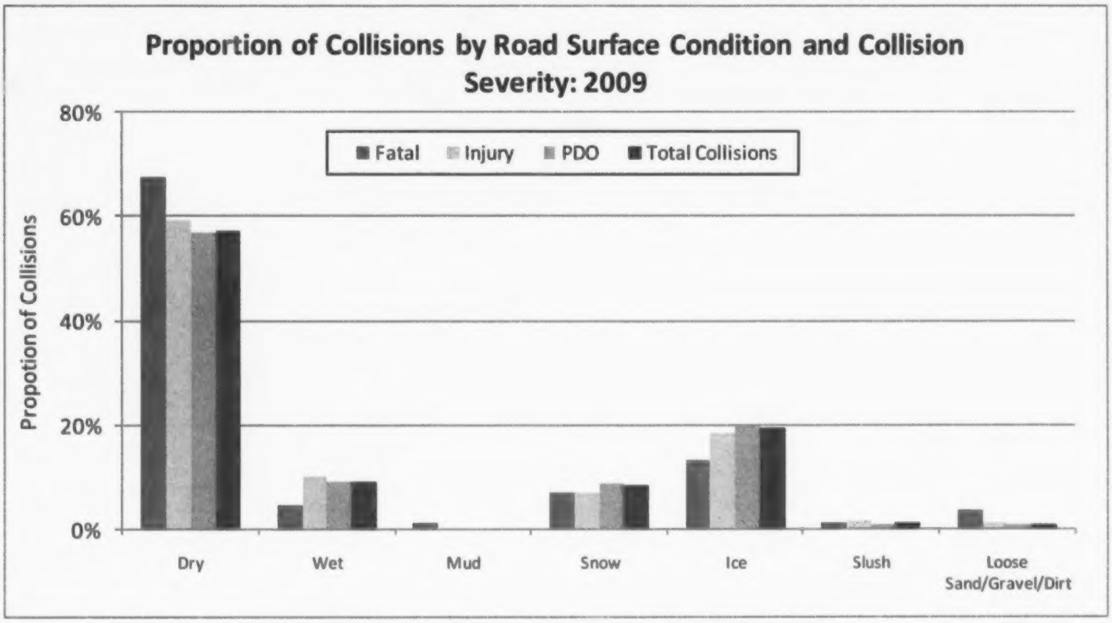


Table 4-8 Traffic Collisions by Weather Condition and Collision Severity

Table 4-8
Traffic Collisions by Weather Condition and Collision Severity: 2009, 2004-2008 Average

Weather Condition	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Clear	46	55.4%	3,698	68.5%	14,467	68.6%	**18,211**	68.5%	58	4,244	16,275	20,577	65.7%
Cloudy	16	19.3%	861	16.0%	3,143	14.9%	**4,020**	15.1%	19	1,114	3,994	5,126	16.4%
Raining	2	2.4%	259	4.8%	983	4.7%	**1,244**	4.7%	4	348	1,066	1,419	4.5%
Snowing	8	9.6%	291	5.4%	1,146	5.4%	**1,445**	5.4%	5	317	1,366	1,688	5.4%
Fog or Mist	4	4.8%	44	0.8%	189	0.9%	**237**	0.9%	2	55	237	295	0.9%
Smoke or Dust	0	-	3	<0.1%	16	<0.1%	**19**	<0.1%	-	4	9	13	<0.1%
Freezing Rain/Sleet/Hail	1	1.2%	38	0.7%	105	0.5%	**144**	0.5%	1	39	124	164	0.5%
Drifting Snow	1	1.2%	34	0.6%	115	0.5%	**150**	0.6%	1	60	186	246	0.8%
Strong Winds	0	-	31	0.6%	90	0.4%	**121**	0.5%	1	47	127	175	0.6%
Other	0	-	0	-	2	<0.1%	**2**	<0.1%	-	<1	1	1	<0.1%
Not Applicable	5	6.0%	125	2.3%	737	3.5%	**867**	3.3%	2	209	1,338	1,549	4.9%
Unknown	0	-	12	0.2%	106	0.5%	**118**	0.4%	-	8	36	44	0.1%
Total	83	100%	5,396	100%	21,099	99%	**26,578**	99%	93	6,446	24,760	31,298	100%

Most collisions in Manitoba occur during "clear" weather conditions. Nearly seven in ten (69%) of all collisions in 2009 and 66% of all collisions in the previous five year period (2004 to 2008) on average occurred in "clear" weather. In 2009:

- "Cloudy" conditions account for 15% of all collisions, 19% of fatal collisions, 16% of injury collisions, and, 15% of PDO collisions;
- "Snowing" account for 5% of all collisions, 10% of fatal collisions, 5% of injury collisions, and, 5% of PDO collisions; and,
- "Raining" account for 5% of all collisions, 2% of fatal collisions, 5% of injury collisions, and, 5% of PDO collisions.

Figure 4-6 Traffic Collisions by Weather Condition and Collision Severity

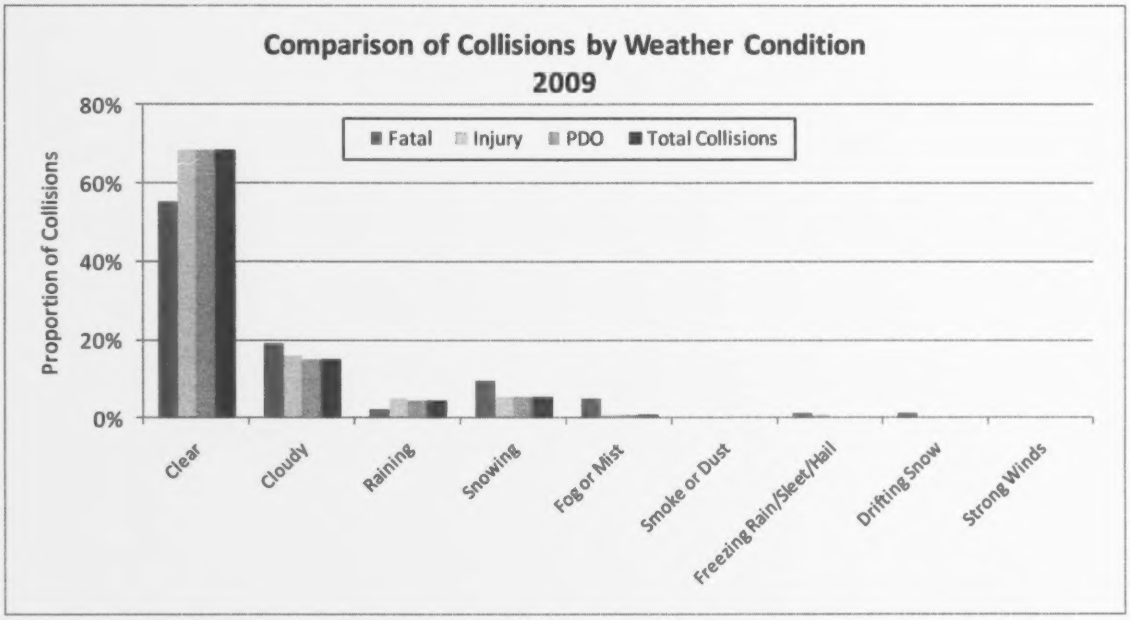


Table 4-9 Accident Configuration and Collision Severity

Table 4-9

Accident Configuration and Collision Severity: 2009, 2004-2008 Average

Accident Configuration	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Rear End	3	4.3%	1,534	37.6%	4,483	35.5%	**6,020**	35.9%	5	1,933	4,698	6,636	32.5%
Head On	11	15.7%	71	1.7%	172	1.4%	**254**	1.5%	13	83	236	332	1.6%
Side Swipe Opposing	1	1.4%	40	1.0%	256	2.0%	**297**	1.8%	1	57	330	388	1.9%
Side Swipe Same Direction	0	-	124	3.0%	1,394	11.0%	**1,518**	9.1%	1	138	1,402	1,541	7.5%
Overtaking	1	1.4%	53	1.3%	357	2.8%	**411**	2.5%	<1	68	411	480	2.3%
Right Turn - Same direction	0	-	21	0.5%	114	0.9%	**135**	0.8%	<1	33	120	153	0.7%
Right Turn - Opposing	0	-	9	0.2%	60	0.5%	**69**	0.4%	-	19	84	103	0.5%
Left Turn - Opposing	1	1.4%	46	1.1%	160	1.3%	**207**	1.2%	-	67	174	240	1.2%
Left Turn - Same direction	0	-	33	0.8%	166	1.3%	**199**	1.2%	<1	33	180	213	1.0%
Left Turn - Across	2	2.9%	300	7.4%	731	5.8%	**1,033**	6.2%	1	339	789	1,128	5.5%
Intersection 90 degrees	15	21.4%	875	21.5%	2,160	17.1%	**3,050**	18.2%	14	1,100	2,671	3,785	18.5%
Off Road Right	15	21.4%	285	7.0%	630	5.0%	**930**	5.5%	14	364	747	1,125	5.5%
Off Road Left	8	11.4%	203	5.0%	417	3.3%	**628**	3.7%	13	278	482	773	3.8%
Fixed Object	4	5.7%	141	3.5%	814	6.4%	**959**	5.7%	3	169	1,154	1,327	6.5%
Parking	0	-	12	0.3%	705	5.6%	**717**	4.3%	<1	27	1,770	1,798	8.8%
Pedestrian	9	12.9%	330	8.1%	4	<0.1%	**343**	2.0%	11	400	9	420	2.1%
Other	13	-	1,319	-	8,476	-	**9,808**	-	16	1,338	9,502	10,856	-
Total	83	100%	5,396	100%	21,099	100%	**26,578**	100%	93	6,446	24,760	31,298	100%

Note: "Other" accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in "% of Total" exclude the "Other" category.

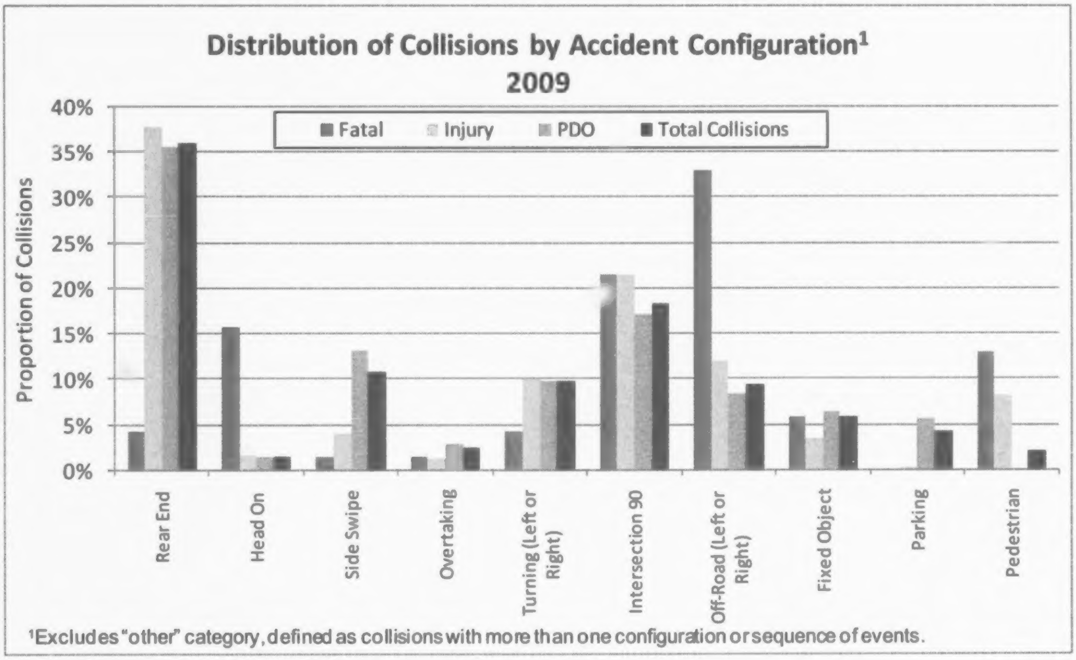
The most common accident configuration (or sequence of events immediately prior to or at the start of a collision) for collisions occurring in Manitoba in 2009 (excluding "other") is a "rear end" type. "Rear end" accidents account for 36% of all collisions in 2009 (4% of fatal collisions; 38% of injury collisions; 36% of PDO collisions).

Following "rear end" collisions, the next most common accident configurations in 2009 (excluding "other") are:

- Collisions occurring at "90° intersections" – 18% of all collisions, 21% of fatal collisions, 22% of injury collisions and 17% of PDO collisions;
- "Side-swipe collisions", including in the same or opposing direction – 11% of all collisions, 1% of fatal collisions, 4% of injury collisions, 13% of PDO collisions; and,
- "Turning", either left or right and including in the same or opposing direction – 10% of all collisions, 4% of fatal collisions, 10% of injury collisions, 10% of PDO collisions.
- Leaving the road, either "off road left" or "off road right" – 9% of all collisions, 33% of fatal collisions, 12% of injury collisions, 8% of PDO collisions;

A large proportion of collisions cannot be assigned a single accident configuration or sequence of events. That is, they involve more than one of the possible configuration types. These collisions fall into the "other" category. In 2009, 37% of all collisions (16% fatal; 24% injury; 40% PDO) were recorded as "other". In the previous five years (2004 to 2008) on average, 35% of all collisions (18% fatal; 21% injury; 38% PDO) were recorded as "other".

Figure 4-7 Distribution of Collisions by Accident Configuration and Collision Severity



¹Excludes "other" category, defined as collisions with more than one configuration or sequence of events.

Leaving the road (i.e., either "off road left" or "off road right") resulted in the highest proportion of fatal collisions (33%) in 2009. Other collision configurations with a high proportion of fatal collisions include:

- Collisions occurring at "90° intersections" – 21% of all fatal collisions;
- "Head-on" collisions – 16% of all fatal collisions; and,
- "Pedestrian" collisions – 13% of all fatal collisions.

Injuries were most likely to occur in "rear-end" collisions (38% of all injury collisions), collisions occurring at "90° intersections" (22%), "off road (left or right)" (12%), "turning (left or right)" (10%) or collisions with "pedestrians" (8%).

SECTION 5 – Collision Victims

Introduction

This section calculates the number of victims killed and injured in traffic collisions and examines the severity of the injury received by the victim. Month, time and day of occurrences are examined, as well as the age of the victim. Specific contributing factors to the collision are also presented for each victim. Relative involvement of victims in traffic collisions per 100,000 people in the general population is also calculated.

Key Highlights

In 2009, there were 7,302 victims (or casualties) of traffic collisions. Of these:

- 86 were killed;
- 384 were seriously injured;
- 2,853 sustained minor injuries;
- 3,288 sustained minimal injuries; and
- 691 sustained injuries that are undefined in terms of severity.

The relative involvement (per 100,000 people in the general population) of casualties in traffic collisions in 2009 (601.3) has decreased by 9% compared to 2008 and by 18% compared to the previous five years (2004 to 2008) on average. Casualty involvement rates in traffic collisions in 2009 where the victim:

- Was killed (7.1 in 2009) has decreased by nearly 8% compared to 2008 and by 21% compared to the previous five years on average; and,
- Was injured, including all levels of severity but excluding killed (594.2 in 2009), has decreased by 9% compared to 2008 and by 18% compared to the previous five years on average.

Victims aged 25 to 34 and those aged 35 to 44 account for the highest proportion of casualties in 2009 (17% of all casualties in each group), closely followed by those aged 45 to 54 (16% of all casualties). Victims aged 15 to 19 and those aged 20 to 24 account for 13%, each, of all casualties in 2009.

While women account for just over half of all casualties in traffic collisions (54%), men account for a higher proportion of victims killed (73%) and seriously injured (55%).

“Drivers” account for 64% of all casualties and motor vehicle “Passengers” for 26%. “Pedestrians” (5% of all casualties) and “Bicyclists” (3%) are the next largest “Road User Class” groups. While motorcyclists (including moped riders) account for less than 2% of all casualties overall, they account for a disproportionate number of victims killed (nearly 5%) and seriously injured (just over 6%).

In 2009, casualties in traffic collisions most frequently result from crashes occurring:

- In Winnipeg – 60% of all victims;
- In the late fall and winter months (including November through February) – 36% of all victims; 30% of victims killed and 36% of victims injured;
- On Thursday (15% of all victims) or Friday (17% of all victims); and,
- Between noon and 6 p.m. (12:00-14:59 – 18% of all victims; 15:00 to 17:59 – 25% of all victims).

Major Elements Examined

Counts of collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance.

It is important to note that the number of victims involved in traffic collisions is not equal to the number of collisions that occurred as each collision can result in multiple victims while some collisions result in property damage only (PDO). PDO collisions are not included in this section.

The terms ‘crash’, ‘collision’ and ‘accident’ are used interchangeably in this report. As well, the terms ‘victim’ and ‘casualty’, and the terms ‘fatality’ and ‘killed’ are used interchangeably in this report.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Terms and Definitions

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal injury sustained (i.e., victims sustaining a serious/major, minor or minimal injury).

"Killed"

- The casualty type "killed" indicates where the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates where the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injury is not known or recorded in the TAR.

"Road User Class"

- A classification based on how a person involved in a collision was using the road at the time of the collision. It includes: Drivers (of motor vehicles), Passengers (in motor vehicles), those Riding/Hanging On (to a motor vehicle), Motorcyclist (drivers and passengers), Moped (drivers and passengers), Bicyclist (drivers and passengers), and Pedestrians.

"Vehicle Occupant"

- All those in the "Road User Class" recorded as "Drivers" and "Passengers". It excludes "Motorcyclist", "Bicyclist", "Moped", those "Riding/Hanging On" to a vehicle and "Pedestrians".

"Casualty Involvement Rate"

- A calculation of the number of victims or casualties involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes, primarily, collisions involving more than one configuration or sequence of events.

Table 5-1 Historical Summary of Victims in Traffic Collisions

Table 5-1

Historical Summary of Victims in Traffic Collisions: 1999 to 2009

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
1999	113	-	-	-	-	-	-	-	-	-	9,697	-	9,810	-
2000	111	-1.8%	-	-	-	-	-	-	-	-	9,485	-2.2%	9,596	-2.2%
2001	94	-15.3%	-	-	-	-	-	-	-	-	9,002	-5.1%	9,096	-5.2%
2002	109	16.0%	-	-	-	-	-	-	-	-	9,533	5.9%	9,642	6.0%
2003	102	-6.4%	499	-	3,829	-	4,719	-	672	-	9,719	2.0%	9,821	1.9%
2004	99	-2.9%	483	-3.2%	3,736	-2.4%	4,308	-8.7%	688	2.4%	9,215	-5.2%	9,314	-5.2%
2005	113	14.1%	421	-12.8%	3,345	-10.5%	3,924	-8.9%	950	38.1%	8,640	-6.2%	8,753	-6.0%
2006	119	5.3%	484	15.0%	3,458	3.4%	3,945	0.5%	819	-13.8%	8,706	0.8%	8,825	0.8%
2007	109	-8.4%	426	-12.0%	3,198	-7.5%	3,994	1.2%	905	10.5%	8,523	-2.1%	8,632	-2.2%
2008	92	-15.6%	396	-7.0%	2,968	-7.2%	3,678	-7.9%	790	-12.7%	7,832	-8.1%	7,924	-8.2%
2009	**86**	**-6.5%**	**384**	**-3.0%**	**2,853**	**-3.9%**	**3,288**	**-10.6%**	**691**	**-12.5%**	**7,216**	**-7.9%**	**7,302**	**-7.8%**
2004-2008 Average*	106	-1.5%	442	-4.0%	3,341	-4.8%	3,970	-4.8%	830	4.9%	8,583	-4.2%	8,690	-4.2%

*The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

NOTE: A change in the methodology of how injury severity is reported has been implemented beginning in 2008. Historical figures were calculated for the years 2003 to 2007 for comparison purposes, but not for years prior to that time.

In 2009, there were 7,302 victims (or casualties) of traffic collisions. Of these:

- 86 were killed;
- 384 were seriously injured;
- 2,853 sustained minor injuries;
- 3,288 sustained minimal injuries; and
- 691 sustained injuries that are undefined in terms of severity.

Overall, there are 8% fewer victims in traffic collisions in 2009 than there were in 2008. This decrease is nearly twice the rate of decline when compared to that recorded for the previous five year period (2004 to 2008) on average (just over a 4% decrease each year). Compared to the previous five years, in 2009:

- Total casualties are down nearly 16%;
- The number of victims killed is down 19%;
- The number of victims seriously injured is down 13%;
- The number of victims sustaining minor injuries is down 15%;
- The number of victims sustaining minimal injuries is down 17%; and ,
- The number of victims sustaining "other" injuries is down 17%.

Recognizing that counts of victims of collisions could be impacted either positively or negatively by changing population statistics, relative involvement rates per 100,000 people in the general population in Manitoba is examined (see Table 5-2) to provide a standardized rate comparison. This accounts for changing population size instead of simply a raw count of the number of victims involved overall.

Table 5-2 Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions

Table 5-2

Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions: 1999 to 2009

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
1999	9.9	-	-	-	-	-	-	-	-	-	847.3	-	857.2	-
2000	9.7	-2.2%	-	-	-	-	-	-	-	-	824.9	-2.7%	834.5	-2.6%
2001	8.1	-15.8%	-	-	-	-	-	-	-	-	778.6	-5.6%	786.7	-5.7%
2002	9.4	16.0%	-	-	-	-	-	-	-	-	824.5	5.9%	833.9	6.0%
2003	8.8	-6.7%	43.0	-	330.1	-	406.9	-	57.9	-	838.0	1.6%	846.8	1.5%
2004	8.5	-3.8%	41.3	-4.0%	319.4	-3.3%	368.3	-9.5%	58.8	1.5%	787.8	-6.0%	796.3	-6.0%
2005	9.6	13.7%	35.9	-13.1%	285.0	-10.8%	334.3	-9.2%	80.9	37.6%	736.1	-6.6%	745.7	-6.4%
2006	10.1	4.9%	41.1	14.5%	293.4	3.0%	334.8	0.1%	69.5	-14.1%	738.8	0.4%	748.9	0.4%
2007	9.2	-9.0%	35.9	-12.6%	269.6	-8.1%	336.7	0.6%	76.3	9.8%	718.4	-2.8%	727.6	-2.8%
2008	7.7	-16.5%	33.0	-8.0%	247.5	-8.2%	306.8	-8.9%	65.9	-13.6%	653.2	-9.1%	660.9	-9.2%
2009	**7.1**	**-7.7%**	**31.6**	**-4.3%**	**234.9**	**-5.1%**	**270.8**	**-11.7%**	**56.9**	**-13.6%**	**594.2**	**-9.0%**	**601.3**	**-9.0%**
2004-2008 Average*	9.0	-2.1%	37.4	-4.6%	283.0	-5.5%	336.2	-5.4%	70.3	4.2%	726.9	-4.8%	735.9	-4.8%

*The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

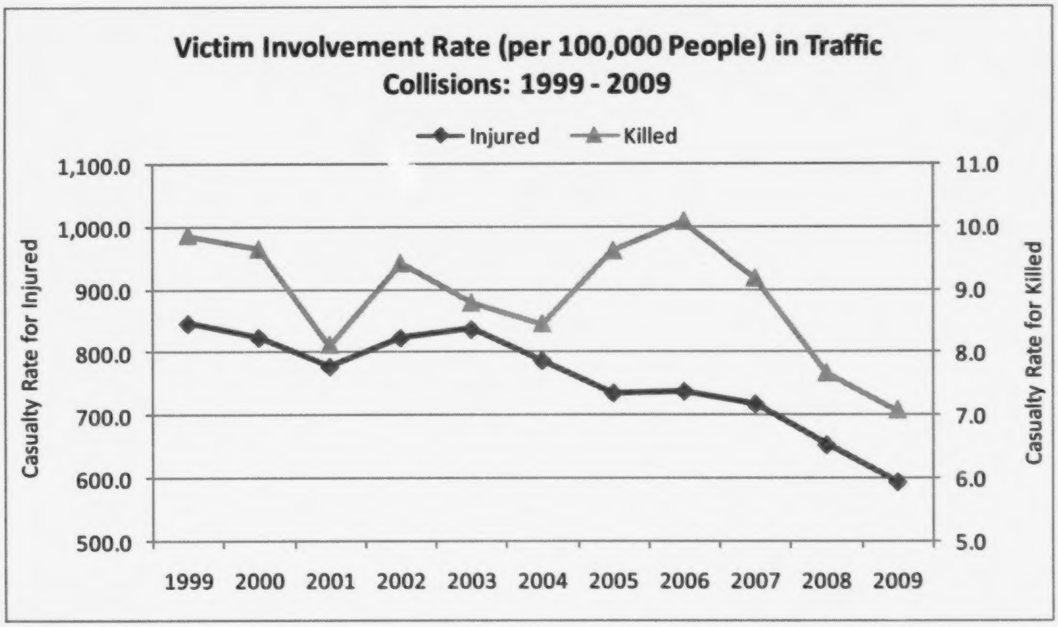
NOTE: A change in the methodology of how injury severity is reported has been implemented beginning in 2008. Historical figures were calculated for the years 2003 to 2007 for comparison purposes, but not for years prior to that time.

The relative involvement (per 100,000 people in the general population) of casualties in traffic collisions in 2009 (601.3) has decreased by 9% compared to 2008 and by 18% compared to the previous five years (2004 to 2008) on average.

Casualty involvement rates in traffic collisions in 2009 where the victim:

- Was killed (7.1 in 2009) has decreased by nearly 8% compared to 2008 and by 21% compared to the previous five years on average;
- Was injured, including all levels of severity but excluding killed (594.2 in 2009), has decreased by 9% compared to 2008 and by 18% compared to the previous five years on average;
- Was seriously injured (31.6 in 2009) has decreased by 4% compared to 2008 and by nearly 16% compared to the previous five years on average;
- Sustained minor injuries (234.9 in 2009) has decreased by 5% compared to 2008 and by 17% compared to the previous five years on average; and,
- Sustained minimal injuries (270.8 in 2009) has decreased by nearly 12% compared to 2008 and by nearly 20% compared to the previous five years on average.

Figure 5-1 Historical Summary of Victim Relative Involvement in Traffic Collisions



Over the last eleven years (1999 to 2009), casualties resulting from traffic collisions have generally declined. The victim involvement rate for injuries has declined each year since 2003 (except in 2006 when the rate increased very slightly), with the rate in 2009 reaching its lowest in the past eleven years.

Over this same time frame, the involvement rate for victims killed in traffic collisions has fluctuated substantially. However, the involvement rate for victims killed in 2009 not only continues a three year downward trend, it is the lowest rate recorded in the past eleven years.

Table 5-3 Collision Victims by Month of Occurrence and Casualty Type

Table 5-3

Total Victims by Month of Occurrence and Casualty Type: 2009

Month of Occurrence	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	9	10.5%	30	7.8%	269	9.4%	420	12.8%	96	13.9%	815	11.3%	**824**	11.3%
February	2	2.3%	26	6.8%	236	8.3%	326	9.9%	45	6.5%	633	8.8%	**635**	8.7%
March	5	5.8%	24	6.3%	247	8.7%	341	10.4%	44	6.4%	656	9.1%	**661**	9.1%
April	6	7.0%	25	6.5%	167	5.9%	223	6.8%	58	8.4%	473	6.6%	**479**	6.6%
May	3	3.5%	27	7.0%	186	6.5%	236	7.2%	40	5.8%	489	6.8%	**492**	6.7%
June	9	10.5%	36	9.4%	279	9.8%	266	8.1%	68	9.8%	649	9.0%	**658**	9.0%
July	7	8.1%	39	10.2%	248	8.7%	255	7.8%	45	6.5%	587	8.1%	**594**	8.1%
August	12	14.0%	40	10.4%	250	8.8%	197	6.0%	35	5.1%	522	7.2%	**534**	7.3%
September	7	8.1%	46	12.0%	237	8.3%	277	8.4%	68	9.8%	628	8.7%	**635**	8.7%
October	11	12.8%	29	7.6%	270	9.5%	263	8.0%	63	9.1%	625	8.7%	**636**	8.7%
November	5	5.8%	45	11.7%	232	8.1%	218	6.6%	64	9.3%	559	7.7%	**564**	7.7%
December	10	11.6%	17	4.4%	232	8.1%	266	8.1%	65	9.4%	580	8.0%	**590**	8.1%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-3a Victims by Month of Occurrence and Casualty Type for Previous Five Years

Table 5-3a

Victims by Month of Occurrence and Casualty Type: 2004-2008 Average

Month of Occurrence	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	7	31	325	454	93	903	910	10.5%
February	6	25	269	371	76	740	747	8.6%
March	5	31	275	348	54	707	712	8.2%
April	6	30	221	236	48	536	542	6.2%
May	8	39	251	286	62	639	647	7.5%
June	10	36	278	321	70	705	714	8.2%
July	10	55	293	289	64	701	711	8.2%
August	12	51	292	307	61	712	723	8.3%
September	11	38	272	307	74	690	701	8.1%
October	13	37	300	337	72	746	759	8.7%
November	11	37	288	334	65	724	734	8.4%
December	9	32	276	380	92	780	789	9.1%
Total	106	442	3,341	3,970	830	8,583	8,690	100%

Victims of traffic collisions are distributed by month fairly closely to what would be expected in normal distribution, although January tends to stand out as a month accounting for a higher than normal proportion. Victims are killed in traffic collisions, however, with greater frequency in the summer and fall months, particularly in August and October. In 2009, August accounts for 14% of all victims killed and October accounts for 13%. In the previous five years (2004 to 2008) on average, August accounts for 11% of all victims killed and October accounts for 12%.

Figure 5-2 Proportion of Victims Killed and Injured by Month of Occurrence

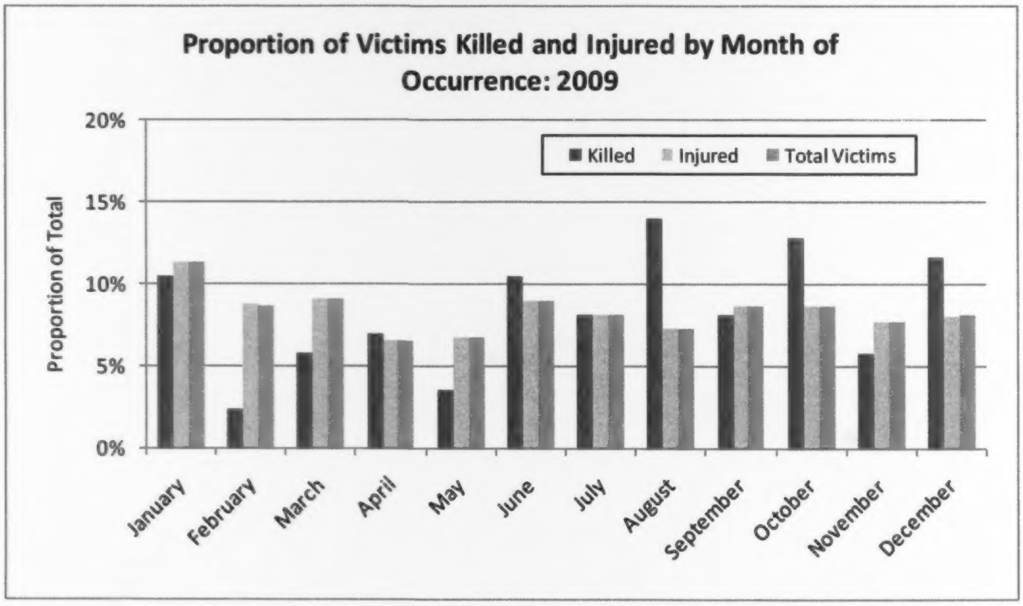


Table 5-4 Collision Victims by Day of Occurrence and Casualty Type

Table 5-4

Total Victims by Day of Occurrence and Casualty Type: 2009

Day of the Week	2009 Casualty Type												**2009 Total Victims**	% 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Sunday	9	10.5%	62	16.1%	329	11.5%	335	10.2%	90	13.0%	816	11.3%	**825**	11.3%
Monday	8	9.3%	32	8.3%	409	14.3%	425	12.9%	98	14.2%	964	13.4%	**972**	13.3%
Tuesday	10	11.6%	40	10.4%	401	14.1%	489	14.9%	107	15.5%	1,037	14.4%	**1,047**	14.3%
Wednesday	14	16.3%	47	12.2%	411	14.4%	485	14.8%	107	15.5%	1,050	14.6%	**1,064**	14.6%
Thursday	15	17.4%	59	15.4%	412	14.4%	511	15.5%	91	13.2%	1,073	14.9%	**1,088**	14.9%
Friday	15	17.4%	74	19.3%	454	15.9%	583	17.7%	117	16.9%	1,228	17.0%	**1,243**	17.0%
Saturday	15	17.4%	70	18.2%	437	15.3%	460	14.0%	81	11.7%	1,048	14.5%	**1,063**	14.6%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-4a Victims by Day of Occurrence and Casualty Type for Previous Five Years

Table 5-4a

Victims by Day of Occurrence and Casualty Type: 2004 to 2008 Average

Day of the Week	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	21	61	407	430	81	979	999	11.5%
Monday	10	50	459	584	121	1,214	1,224	14.1%
Tuesday	9	59	456	572	127	1,214	1,223	14.1%
Wednesday	12	51	464	596	110	1,221	1,234	14.2%
Thursday	14	63	503	616	133	1,315	1,329	15.3%
Friday	16	71	559	651	151	1,430	1,447	16.6%
Saturday	24	87	494	521	108	1,210	1,234	14.2%
Total	106	442	3,341	3,970	830	8,583	8,690	100%

Victims are killed and injured in collisions most frequently on Thursday or Friday. In 2009, more victims were involved in traffic collisions on Thursday (15% of all victims) and Friday (17% of all victims) than any other day of the week. Over the previous five years (2004 to 2008) on average, Thursday and Friday has accounted for 15% and 17% of all victims in traffic collisions, respectively.

The weekend (including all day Friday, Saturday and Sunday) is when most victims are killed in traffic collisions. In 2009, Friday and Saturday each account for more than 17% of victims killed in traffic collisions while Sunday accounts for another 11%. This is similar to the previous five year period (2004 to 2008) on average, when the weekend accounted for nearly 42% of all victims killed in traffic collisions (17% on Friday, 14% on Saturday and 12% on Sunday).

Figure 5-3 Proportion of Victims Killed and Injured by Day of Occurrence

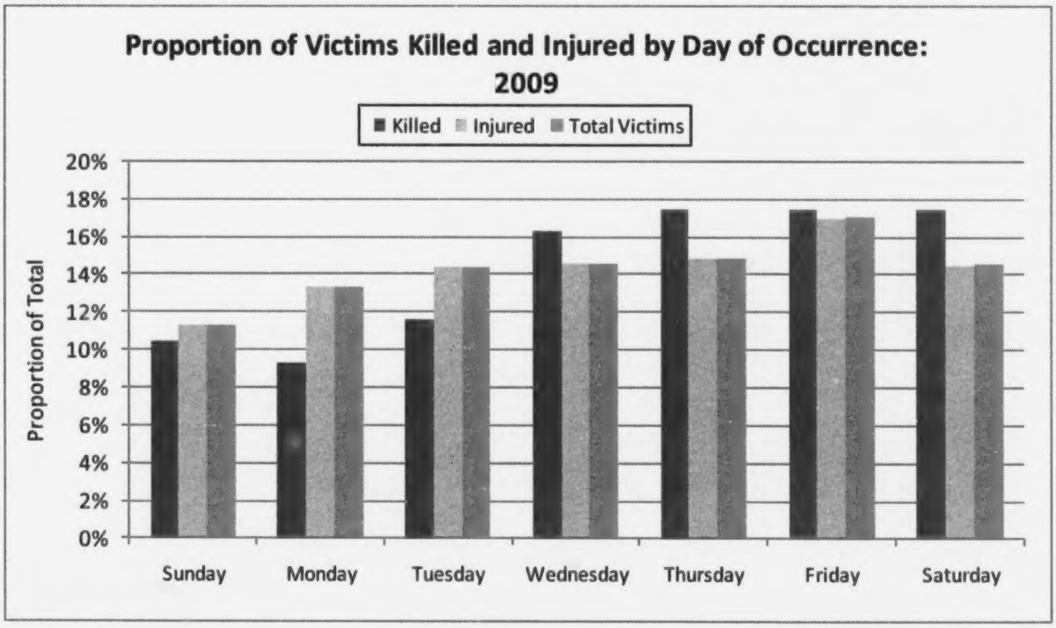


Table 5-5 Collision Victims by Time of Occurrence and Casualty Type

Table 5-5

Total Victims by Time of Occurrence and Casualty Type: 2009

Time of the Day	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
00:00 - 02:59	8	9.3%	24	6.3%	126	4.4%	84	2.6%	19	2.7%	253	3.5%	**261**	3.6%
03:00 - 05:59	5	5.8%	18	4.7%	85	3.0%	80	2.4%	11	1.6%	194	2.7%	**199**	2.7%
06:00 - 08:59	7	8.1%	42	10.9%	317	11.1%	378	11.5%	79	11.4%	816	11.3%	**823**	11.3%
09:00 - 11:59	14	16.3%	36	9.4%	383	13.4%	372	11.3%	72	10.4%	863	12.0%	**877**	12.0%
12:00 - 14:59	10	11.6%	60	15.6%	513	18.0%	628	19.1%	117	16.9%	1,318	18.3%	**1,328**	18.2%
15:00 - 17:59	12	14.0%	75	19.5%	654	22.9%	912	27.7%	187	27.1%	1,828	25.3%	**1,840**	25.2%
18:00 - 20:59	18	20.9%	46	12.0%	383	13.4%	448	13.6%	97	14.0%	974	13.5%	**992**	13.6%
21:00 - 23:59	6	7.0%	53	13.8%	232	8.1%	252	7.7%	51	7.4%	588	8.1%	**594**	8.1%
Not Stated	6	7.0%	30	7.8%	160	5.6%	134	4.1%	58	8.4%	382	5.3%	**388**	5.3%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-5a Victims by Time of Occurrence and Casualty Type for Previous Five Years

Table 5-5a

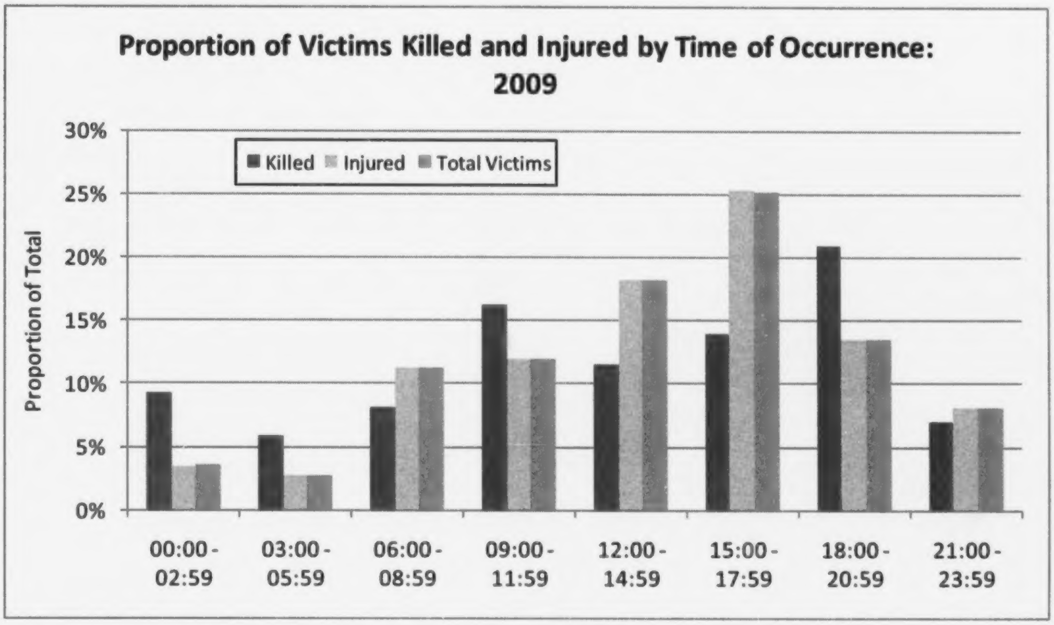
Victims by Time of Occurrence and Casualty: 2004 to 2008 Average

Time of the Day	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
00:00 - 02:59	9	34	130	105	24	293	303	3.5%
03:00 - 05:59	10	22	101	76	14	213	223	2.6%
06:00 - 08:59	10	37	362	436	89	923	933	10.7%
09:00 - 11:59	8	47	426	487	98	1,058	1,066	12.3%
12:00 - 14:59	16	60	613	801	167	1,640	1,656	19.1%
15:00 - 17:59	18	91	772	1,109	219	2,190	2,208	25.4%
18:00 - 20:59	15	68	461	486	110	1,126	1,141	13.1%
21:00 - 23:59	13	54	300	315	62	732	745	8.6%
Not Stated	7	30	176	155	47	408	415	4.8%
Total	106	442	3,341	3,970	830	8,583	8,690	100%

Victims are most often killed and injured in traffic collisions occurring between noon and 6 p.m. In 2009, 43% of all victims are involved in traffic collisions occurring between 12:00 and 14:59 (18%) between 15:00 to 17:59 (25%). This is consistent with the previous five years (2004 to 2008) on average (12:00-14:59 – 19% of all victims; 15:00 to 17:59 – nearly 25% of all victims).

Most victims were killed in traffic collisions between noon and midnight. In 2009, 54% of victims were killed between noon and midnight. In the previous five years (2004 to 2008) on average, 58% of victims were killed between noon and midnight.

Figure 5-4 Proportion of Victims Killed and Injured by Time of Occurrence



In 2009, it appears that the frequency with which victims are injured in traffic collisions builds through the day, beginning at approximately 6 a.m., reaching a peak between 3 p.m. and 6 p.m. and then falling off abruptly until midnight. The lowest frequencies of injuries come between midnight and 6 a.m. This pattern can also be seen in the previous five years (2004 to 2008) on average. The same pattern does not hold for victims killed, which tend to show spikes at certain times during the day and between midnight and 3 a.m.

Table 5-6 Collision Victims by Gender and Casualty Type

Table 5-6

Total Victims by Gender and Age Group and Casualty Type: 2009

Gender	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Female	23	26.7%	174	45.3%	1,595	55.9%	1,794	54.6%	342	49.5%	3,905	54.1%	**3,928**	53.8%
Male	63	73.3%	210	54.7%	1,258	44.1%	1,494	45.4%	349	50.5%	3,311	45.9%	**3,374**	46.2%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-6a Collision Victims by Gender and Casualty Type for Previous Five Years

Table 5-6a

Total Victims by Gender Casualty Type: 2004 to 2008 Average

Gender	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	36	186	1,853	2,227	433	4,699	4,735	54.5%
Male	71	256	1,487	1,743	397	3,882	3,953	45.5%
Total	106	442	3,340	3,969	830	8,582	8,688	100%

In 2009, women account for just over half of all casualties in traffic collisions (54%), unchanged from the previous five years (2004 to 2008) on average. In 2009:

- Men account for a higher proportion of victims killed (73%) than women, similar to the previous five years when men accounted for 66% of victims killed;
- Women account for the majority of victims injured (but not killed) overall (54%), unchanged from the previous five years;
- Men account for a higher proportion of victims seriously injured (55%) than women, similar to the previous five years;
- Women account for a higher proportion of victims sustaining minor injuries (56%) and minimal injuries (55%) than men, unchanged from the previous five years; and,
- An equal proportion of men and women sustained unspecified injuries, similar to the previous five years.

Figure 5-5 Proportion of Victims Killed and Injured by Gender and Casualty Type

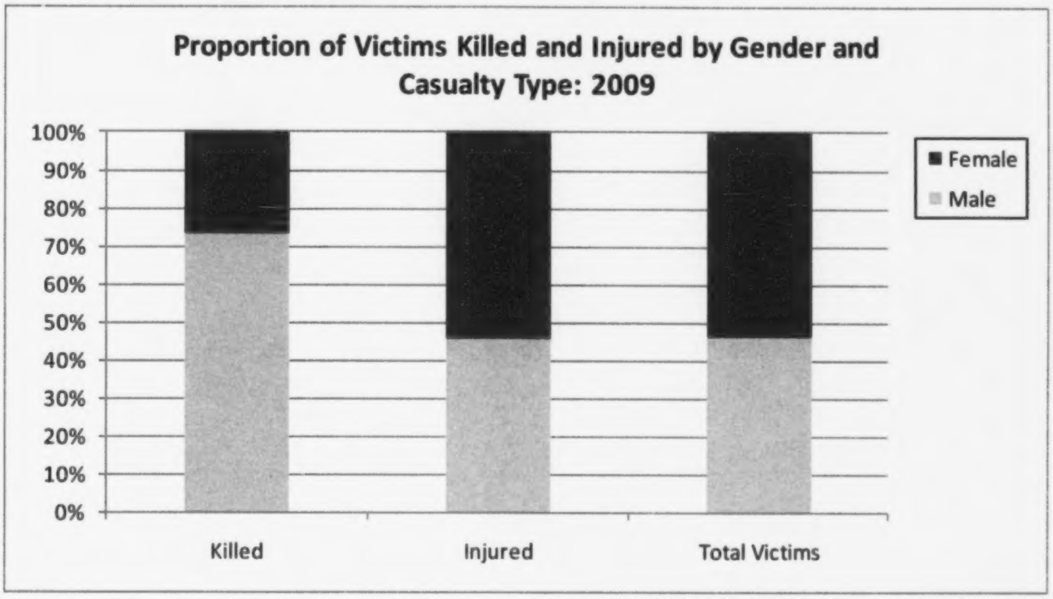


Table 5-7 Collision Victims by Age Group and Casualty Type

Table 5-7

Total Victims by Age Group and Casualty Type: 2009

Age Group	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
0-4	0	-	5	1.4%	43	1.6%	26	1.1%	4	3.0%	78	1.4%	**78**	1.4%
5-9	0	-	7	1.9%	56	2.1%	37	1.5%	4	3.0%	104	1.9%	**104**	1.9%
10-14	0	-	11	3.0%	122	4.6%	57	2.4%	3	2.3%	193	3.5%	**193**	3.4%
15-19	11	13.4%	55	15.0%	422	16.1%	214	8.9%	17	12.8%	708	12.8%	**719**	12.8%
20-24	16	19.5%	57	15.6%	352	13.4%	292	12.2%	11	8.3%	712	12.9%	**728**	13.0%
25-34	12	14.6%	45	12.3%	431	16.4%	431	18.0%	27	20.3%	934	16.9%	**946**	16.9%
35-44	7	8.5%	57	15.6%	398	15.2%	446	18.6%	23	17.3%	924	16.7%	**931**	16.6%
45-54	11	13.4%	49	13.4%	367	14.0%	453	18.9%	21	15.8%	890	16.1%	**901**	16.1%
55-64	8	9.8%	30	8.2%	218	8.3%	281	11.7%	14	10.5%	543	9.8%	**551**	9.8%
65+	17	20.7%	50	13.7%	218	8.3%	163	6.8%	9	6.8%	440	8.0%	**457**	8.1%
Not Stated	4	-	18	-	226	-	888	-	558	-	1,690	-	**1,694**	-
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

*Percentage of the total does not include the "not stated" category.

Table 5-7a Collision Victims by Age Group and Casualty Type for Previous Five Years

Table 5-7a

Total Victims by Age Group and Casualty Type: 2004-2008 Average

Age Group	2004-2008 average Casualty Involvement Rate							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
0-4	1	5	54	30	2	90	92	1.3%
5-9	0	8	92	51	4	156	156	2.2%
10-14	1	17	138	86	6	246	247	3.5%
15-19	11	59	505	336	20	919	931	13.2%
20-24	15	53	415	372	24	865	880	12.5%
25-34	16	67	529	568	29	1,193	1,208	17.1%
35-44	14	65	521	637	29	1,253	1,267	18.0%
45-54	15	57	439	560	32	1,088	1,103	15.6%
55-64	8	43	250	328	15	637	645	9.2%
65+	19	52	240	197	11	500	519	7.4%
Not Stated	4	16	156	805	658	1,635	1,640	-
Total	106	442	3,340	3,969	830	8,582	8,688	100%

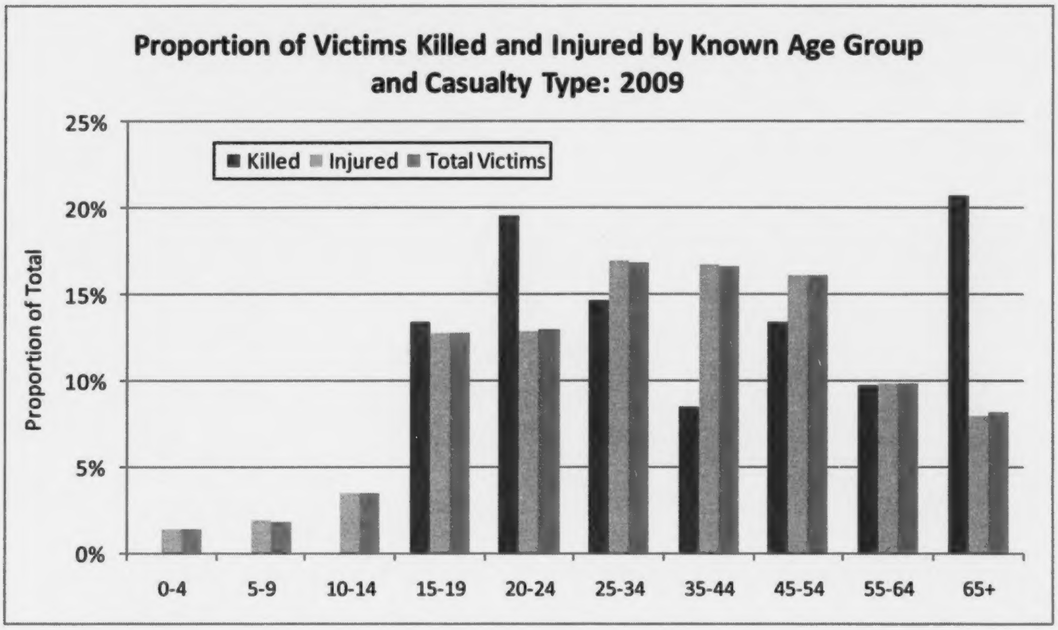
*Percentage of the total does not include the "not stated" category.

Collision victims aged 25 to 34 and those aged 35 to 44 account for the highest proportion of casualties in 2009 (17% of all casualties in each group), closely followed by those aged 45 to 54 (16% of all casualties). Victims aged 15 to 19 and those aged 20 to 24 each account for 13% of all casualties in 2009.

The proportion of victims by age group in 2009 is similar to what it has been in the past five years (2004 to 2008) on average. In the previous five years, the proportion of victims aged 25-34 (17% of all victims) was just below those aged 35 to 44 (18% of all victims); victims aged 45 to 54 accounted for the third largest proportion at 16% of all victims. Victims aged 15 to 19 and those aged 20 to 24 each made up 13%.

In 2009, just less than half of all victims killed (44%) were aged 45 and older (45 to 54 – 13% of all victims; 55 to 64 – 10% of all victims; 65 and older 21% of all victims killed). Just less than a quarter of victims killed (23%) were aged 25 to 44 and 33% were under the age of 25. In the previous five years (2004 to 2008) on average, 41% of victims killed were aged 45 and older while 29% were aged 25 to 44 and 29% were under 25 years old.

Figure 5-6 Proportion of Victims Killed and Injured by Age Group and Casualty Type



Of all victims killed in traffic collisions in 2009, those aged 65 and older made up the largest group (21% of all victims killed), followed by those aged 20 to 24 (20% of all victims killed).

Victims aged 25 to 54 make up the greatest proportion of victims injured in traffic collisions in 2009. As individual groups, victims aged 25 to 34, 35 to 44 and 45 to 54 each account for nearly one in five victims injured in traffic collisions.

NOTE: For a detailed count of collision victims for 2009 and the previous five years (2004 to 2008) on average by age and gender combined, please refer to "*Table 5-8 Total Victims by Gender and Age Group and Casualty Type: 2009*" and "*Table 5-8a Total Victims by Gender and Age Group and Casualty Type: 2004 to 2008 Average*" on the following pages.

Table 5-8 Collision Victims by Age Group, Casualty Type, and Gender

Table 5-8

Total Victims by Gender and Age Group and Casualty Type: 2009

Age Group		2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Female	0-4	0	-	2	1.2%	23	1.6%	11	0.8%	1	1.4%	37	1.2%	**37**	1.2%
	5-9	0	-	3	1.8%	30	2.0%	25	1.9%	1	1.4%	59	2.0%	**59**	1.9%
	10-14	0	-	3	1.8%	67	4.5%	31	2.4%	1	1.4%	102	3.4%	**102**	3.3%
	15-19	4	19.0%	31	18.6%	240	16.3%	116	8.8%	8	11.4%	395	13.1%	**399**	13.1%
	20-24	7	33.3%	27	16.2%	187	12.7%	159	12.1%	8	11.4%	381	12.6%	**388**	12.7%
	25-34	2	9.5%	19	11.4%	246	16.7%	241	18.3%	12	17.1%	518	17.1%	**520**	17.1%
	35-44	1	4.8%	24	14.4%	230	15.6%	236	18.0%	14	20.0%	504	16.7%	**505**	16.6%
	45-54	2	9.5%	17	10.2%	203	13.8%	247	18.8%	14	20.0%	481	15.9%	**483**	15.9%
	55-64	2	9.5%	16	9.6%	123	8.4%	161	12.3%	6	8.6%	306	10.1%	**308**	10.1%
	65+	3	14.3%	25	15.0%	124	8.4%	87	6.6%	5	7.1%	241	8.0%	**244**	8.0%
	Not Stated	2	-	7	-	122	-	480	-	272	-	881	-	**883**	-
	Total Female	**23**	**100%**	**174**	**100%**	**1,595**	**100%**	**1,794**	**100%**	**342**	**100%**	**3,905**	**100%**	**3,928**	100%
Male	0-4	0	-	3	1.5%	20	1.7%	15	1.4%	3	4.8%	41	1.6%	**41**	1.6%
	5-9	0	-	4	2.0%	26	2.3%	12	1.1%	3	4.8%	45	1.8%	**45**	1.8%
	10-14	0	-	8	4.0%	55	4.8%	26	2.4%	2	3.2%	91	3.6%	**91**	3.6%
	15-19	7	11.5%	24	12.1%	182	15.8%	98	9.0%	9	14.3%	313	12.5%	**320**	12.5%
	20-24	9	14.8%	30	15.1%	165	14.3%	133	12.2%	3	4.8%	331	13.2%	**340**	13.3%
	25-34	10	16.4%	26	13.1%	185	16.0%	190	17.5%	15	23.8%	416	16.6%	**426**	16.6%
	35-44	6	9.8%	33	16.6%	168	14.6%	210	19.3%	9	14.3%	420	16.8%	**426**	16.6%
	45-54	9	14.8%	32	16.1%	164	14.2%	206	19.0%	7	11.1%	409	16.3%	**418**	16.3%
	55-64	6	9.8%	14	7.0%	95	8.2%	120	11.0%	8	12.7%	237	9.5%	**243**	9.5%
	65+	14	23.0%	25	12.6%	94	8.1%	76	7.0%	4	6.3%	199	8.0%	**213**	8.3%
	Not Stated	2	-	11	-	104	-	408	-	286	-	809	-	**811**	-
	Total Male	**63**	**100%**	**210**	**100%**	**1,258**	**100%**	**1,494**	**100%**	**349**	**100%**	**3,311**	**100%**	**3,374**	100%

*Percentage of the total does not include the "not stated" category.

Table 5-8a Victims by Gender and Age Group and Casualty Type for Previous Five Years

Table 5-8a

Victims by Gender and Age Group and Casualty Type: 2004 to 2008 Average

Age Group		2004-2008 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	0-4	1	2	24	13	1	40	40	1.0%
	5-9	0	3	43	28	1	75	76	1.9%
	10-14	1	7	68	46	3	123	124	3.2%
	15-19	4	26	286	189	11	513	517	13.3%
	20-24	5	20	229	218	13	479	484	12.5%
	25-34	5	25	297	324	13	659	664	17.1%
	35-44	4	26	297	366	17	706	711	18.3%
	45-54	4	25	248	322	18	613	617	15.9%
	55-64	2	18	140	190	8	357	359	9.3%
	65+	8	26	135	110	6	277	285	7.4%
	Not Stated	2	7	86	421	342	856	858	-
	Total Female	36	186	1,853	2,227	433	4,699	4,735	100%
Male	0-4	1	3	30	17	1	51	51	1.6%
	5-9	0	5	49	23	4	80	80	2.5%
	10-14	1	10	71	40	3	123	124	3.9%
	15-19	7	32	219	146	9	406	414	13.0%
	20-24	10	34	186	154	12	386	396	12.5%
	25-34	11	42	232	243	16	533	544	17.1%
	35-44	10	39	224	272	11	546	556	17.5%
	45-54	11	31	191	238	14	475	486	15.3%
	55-64	6	25	110	138	7	280	286	9.0%
	65+	11	26	105	88	4	223	234	7.4%
	Not Stated	3	9	71	384	316	779	782	-
	Total Male	71	256	1,487	1,743	397	3,882	3,953	100%

*Percentage of the total does not include the "not stated" category.

Table 5-9 Casualty Involvement Rate (per 100,000 people) by Gender and Age Group and Casualty Type

Table 5-9

Casualty Involvement (per 100,000 people) by Gender and Age Group and Casualty Type: 2009, 2004-2008 Average

Age Group		2009 Casualty Type						**2009 Total Victims**	2004-2008 average Casualty Involvement Rate						
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims
Female	0-4	-	5.3	61.3	29.3	2.7	98.7	**98.7**	1.7	5.7	68.1	36.3	2.8	112.9	114.6
	5-9	-	8.2	82.1	68.4	2.7	161.4	**161.4**	1.1	9.2	115.7	76.2	2.2	203.3	204.4
	10-14	-	7.6	169.3	78.3	2.5	257.8	**257.8**	1.5	17.0	164.3	111.8	6.3	299.5	300.9
	15-19	9.3	71.8	555.7	268.6	18.5	914.5	**923.8**	10.0	62.5	683.0	451.7	26.2	1223.4	1233.4
	20-24	16.9	65.2	451.4	383.8	19.3	919.8	**936.7**	13.0	49.0	572.2	544.3	31.5	1197.0	1210.0
	25-34	2.5	24.1	311.4	305.1	15.2	655.7	**658.2**	6.6	33.0	389.2	424.9	17.0	864.2	870.7
	35-44	1.2	29.6	283.4	290.8	17.3	621.1	**622.3**	5.0	30.9	350.3	431.4	20.5	833.2	838.1
	45-54	2.2	18.7	223.3	271.7	15.4	529.1	**531.3**	4.6	29.2	285.1	369.7	20.9	705.0	709.6
	55-64	2.8	22.6	173.4	226.9	8.5	431.3	**434.1**	3.1	28.6	220.8	299.1	12.6	561.1	564.3
	65+	3.2	26.3	130.6	91.6	5.3	253.8	**257.0**	3.9	15.6	185.8	913.7	742.7	1857.7	1861.6
	Total Female	**3.7**	**28.3**	**259.3**	**291.6**	**55.6**	**634.8**	**638.5**	6.0	31.1	309.3	371.6	72.3	784.3	790.3
Male	0-4	-	7.7	51.2	38.4	7.7	104.9	**104.9**	2.2	7.6	81.3	45.5	2.7	137.2	139.3
	5-9	-	10.4	67.6	31.2	7.8	116.9	**116.9**	-	11.8	125.3	59.3	9.2	205.6	205.6
	10-14	-	19.1	131.6	62.2	4.8	217.7	**217.7**	1.9	22.3	163.6	91.8	7.0	284.6	286.5
	15-19	15.6	53.3	404.4	217.8	20.0	695.5	**711.0**	16.5	74.2	501.5	334.8	20.2	930.7	947.2
	20-24	21.6	71.9	395.3	318.6	7.2	793.0	**814.6**	25.1	82.8	459.1	378.8	29.1	949.7	974.8
	25-34	12.8	33.2	235.9	242.3	19.1	530.6	**543.3**	14.0	55.7	305.8	321.4	21.1	704.0	718.0
	35-44	7.4	40.8	207.5	259.4	11.1	518.8	**526.2**	11.8	46.4	265.5	321.7	13.5	647.1	659.0
	45-54	9.8	34.9	178.6	224.4	7.6	445.5	**455.3**	12.8	36.0	218.8	273.1	15.8	543.6	556.4
	55-64	8.7	20.2	137.3	173.5	11.6	342.6	**351.2**	9.6	39.7	176.2	221.4	11.9	449.2	458.8
	65+	19.2	34.4	129.2	104.4	5.5	273.5	**292.7**	32.5	75.4	303.8	253.9	12.8	645.8	678.3
	Total Male	**10.5**	**35.0**	**209.9**	**249.3**	**58.2**	**552.6**	**563.1**	12.1	43.9	255.4	299.3	68.1	666.7	678.8

Overall, women have a higher casualty involvement rates than men. The casualty involvement rate for females in all traffic collisions in 2009 is 638.5 while for males it is 563.1 (per 100,000 people). In the previous five years (2004-2008) on average, women have a higher involvement rate than men (women 790.0; men 678.8). However, men have higher casualty involvement rates than women when it comes to death and sustaining serious injuries. Casualty involvement by gender overall (per 100,000 people):

- Victims killed – Males 10.5 in 2009 (12.1 in previous 5-year average), Females 3.7 in 2009 (6.0 in previous 5-year average);
- Victims seriously injured – Males 35.0 in 2009 (43.9 in previous 5-year average), Females 28.3 in 2009 (31.1 in previous 5-year average);
- Victims sustaining minor injuries – Males 209.9 in 2009 (255.4 in previous 5-year average), Females 259.3 in 2009 (309.3 in previous 5-year average);
- Victims sustaining minimal injuries – Males 249.3 in 2009 (299.3 in previous 5-year average), Females 291.6 in 2009 (371.6 in previous 5-year average); and,
- Victims sustaining "other" injuries – Males 58.2 in 2009 (68.1 in previous 5-year average), Females 55.6 in 2009 (72.3 in previous 5-year average).

Young people aged 15 to 24 have the highest casualty involvement rates overall in 2009 and in the previous five years (2004 to 2008) on average.

In 2009, women aged 20 to 24 had the highest casualty involvement rate of any age-gender group, at 936.7 victims per 100,000 people overall. This rate is more than 1.4 times the casualty rate for women overall (638.5) and more the 1.1 times the casualty rate for men in the same age group (814.6 for males aged 20 to 24, also the highest rate among all male age groups).

Casualty involvement rates in 2009 have decreased by an average of 18% compared to casualty involvement rates in the previous five years (2004 to 2008) on average. For women, casualty involvement for victims overall has decreased by 19%; for men, the rate has decreased by 17%.

Casualty involvement rates for women (overall victims) in 2009 compared to the previous five years on average:

- Under 15 years of age have decreased by 16%;
- 15 to 19 have decreased by 25%;
- 20 to 24 have decreased by 23%;
- 25 to 34 have decreased by 24%;
- 35 to 44 have decreased by 26%;
- 45 to 54 have decreased by 25%;
- 55 to 64 have decreased by 23%; and,
- 65 and older have decreased by 86%.

Casualty involvement rates for men (overall victims) in 2009 compared to the previous five years on average:

- Under 15 years of age have decreased by 31%;
- 15 to 19 have decreased by 25%;
- 20 to 24 have decreased by 16%;
- 25 to 34 have decreased by 24%;
- 35 to 44 have decreased by 20%;
- 45 to 54 have decreased by 18%;
- 55 to 64 have decreased by 23%; and,
- 65 and older have decreased by 57%.

Table 5-10 Collision Victims Killed by Road User Class and Age Group

Table 5-10

Total Victims by Road User Class and Age Group and Casualty Type: 2009

Age Group		2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Driver	0-4	0	-	0	-	1	<0.1%	3	0.2%	0	-	4	0.1%	**4**	0.1%
	5-9	0	-	0	-	3	0.2%	2	0.1%	0	-	5	0.1%	**5**	0.1%
	10-14	0	-	1	0.5%	3	0.2%	0	-	1	1.4%	5	0.1%	**5**	0.1%
	15-19	8	15.1%	24	12.8%	212	13.6%	127	7.3%	5	7.2%	368	10.3%	**376**	10.4%
	20-24	10	18.9%	28	15.0%	233	14.9%	221	12.7%	2	2.9%	484	13.6%	**494**	13.7%
	25-34	7	13.2%	24	12.8%	279	17.8%	327	18.8%	18	26.1%	648	18.2%	**655**	18.1%
	35-44	5	9.4%	38	20.3%	283	18.1%	350	20.2%	17	24.6%	688	19.3%	**693**	19.2%
	45-54	5	9.4%	24	12.8%	271	17.3%	365	21.0%	14	20.3%	674	19.0%	**679**	18.8%
	55-64	5	9.4%	19	10.2%	146	9.3%	222	12.8%	7	10.1%	394	11.1%	**399**	11.1%
	65+	13	24.5%	29	15.5%	133	8.5%	119	6.9%	5	7.2%	286	8.0%	**299**	8.3%
	Not Stated	2	-	6	-	131	-	607	-	333	-	1,077	-	**1,079**	-
	Total Drivers*	**55**	**100%**	**193**	**100%**	**1,695**	**100%**	**2,343**	**100%**	**402**	**100%**	**4,633**	**100%**	**4,688**	100%
Passenger	0-4	0	-	4	3.6%	40	4.8%	22	3.8%	3	7.1%	69	4.4%	**69**	4.3%
	5-9	0	-	5	4.5%	40	4.8%	34	5.8%	3	7.1%	82	5.2%	**82**	5.1%
	10-14	0	-	7	6.3%	96	11.4%	52	8.9%	2	4.8%	157	10.0%	**157**	9.9%
	15-19	2	12.5%	19	17.0%	188	22.4%	84	14.4%	3	7.1%	294	18.6%	**296**	18.6%
	20-24	6	37.5%	19	17.0%	86	10.2%	62	10.7%	7	16.7%	174	11.0%	**180**	11.3%
	25-34	1	6.3%	15	13.4%	119	14.1%	85	14.6%	6	14.3%	225	14.3%	**226**	14.2%
	35-44	1	6.3%	11	9.8%	87	10.3%	76	13.1%	3	7.1%	177	11.2%	**178**	11.2%
	45-54	4	25.0%	13	11.6%	67	8.0%	76	13.1%	7	16.7%	163	10.3%	**167**	10.5%
	55-64	1	6.3%	6	5.4%	47	5.6%	53	9.1%	4	9.5%	110	7.0%	**111**	7.0%
	65+	1	6.3%	13	11.6%	71	8.4%	38	6.5%	4	9.5%	126	8.0%	**127**	8.0%
	Not Stated	1	-	7	-	60	-	163	-	76	-	306	-	**307**	-
	Total Passengers*	**17**	**100%**	**119**	**100%**	**901**	**100%**	**745**	**100%**	**118**	**100%**	**1,883**	**100%**	**1,900**	100%

(Continued next page)

(Continued from previous page)

Age Group		2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Motorcyclist	0-4	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	5-9	0	-	0	-	1	2.3%	0	-	0	-	1	1.2%	**1**	1.1%
	10-14	0	-	0	-	0	-	1	4.5%	0	-	1	1.2%	**1**	1.1%
	15-19	0	-	0	-	3	7.0%	0	-	0	-	3	3.5%	**3**	3.4%
	20-24	0	-	1	5.3%	9	20.9%	2	9.1%	0	-	12	14.1%	**12**	13.5%
	25-34	1	25.0%	4	21.1%	3	7.0%	6	27.3%	0	-	13	15.3%	**14**	15.7%
	35-44	1	25.0%	3	15.8%	8	18.6%	8	36.4%	0	-	19	22.4%	**20**	22.5%
	45-54	1	25.0%	7	36.8%	9	20.9%	4	18.2%	0	-	20	23.5%	**21**	23.6%
	55-64	1	25.0%	3	15.8%	9	20.9%	0	-	1	100.0%	13	15.3%	**14**	15.7%
	65+	0	-	1	5.3%	1	2.3%	1	4.5%	0	-	3	3.5%	**3**	3.4%
	Not Stated	0	-	4	-	5	-	15	-	6	-	30	-	**30**	-
	Total Motorcyclists*	**4**	**100%**	**23**	**100%**	**48**	**100%**	**37**	**100%**	**7**	**100%**	**115**	**100%**	**119**	100%
Moped	0-4	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	10-14	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	15-19	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	20-24	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	25-34	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	35-44	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	45-54	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	55-64	0	-	1	100.0%	0	-	0	-	0	-	1	100.0%	**1**	100.0%
	65+	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	Not Stated	0	-	0	-	0	-	0	-	2	-	2	-	**2**	-
	Total Moped*	**0**	**0%**	**1**	**100%**	**0**	**0%**	**0**	**0%**	**2**	**0%**	**3**	**100%**	**3**	100%

(Continued next page)

(Continued from previous page)

Age Group		2009 Casualty Type												2009 Total Victims	% of 2009 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Bicyclist	0-4	0	-	0	-	0	-	1	3.8%	0	-	1	1.0%	**1**	1.0%
	5-9	0	-	0	-	3	4.9%	1	3.8%	0	-	4	3.9%	**4**	3.8%
	10-14	0	-	0	-	11	18.0%	2	7.7%	0	-	13	12.6%	**13**	12.5%
	15-19	0	-	4	44.4%	5	8.2%	0	-	3	42.9%	12	11.7%	**12**	11.5%
	20-24	0	-	1	11.1%	10	16.4%	6	23.1%	2	28.6%	19	18.4%	**19**	18.3%
	25-34	0	-	1	11.1%	14	23.0%	7	26.9%	2	28.6%	24	23.3%	**24**	23.1%
	35-44	0	-	2	22.2%	8	13.1%	5	19.2%	0	-	15	14.6%	**15**	14.4%
	45-54	0	-	1	11.1%	4	6.6%	3	11.5%	0	-	8	7.8%	**8**	7.7%
	55-64	0	-	0	-	5	8.2%	1	3.8%	0	-	6	5.8%	**6**	5.8%
	65+	1	100.0%	0	-	1	1.6%	0	-	0	-	1	1.0%	**2**	1.9%
	Not Stated	0	-	1	-	10	-	46	-	60	-	117	-	**117**	-
	Total Bicyclists*	**1**	**100%**	**10**	**100%**	**71**	**100%**	**72**	**100%**	**67**	**100%**	**220**	**100%**	**221**	100%
Pedestrian	0-4	0	-	1	2.7%	2	1.7%	0	-	1	7.1%	4	2.0%	**4**	1.9%
	5-9	0	-	2	5.4%	9	7.6%	0	-	1	7.1%	12	5.9%	**12**	5.7%
	10-14	0	-	3	8.1%	12	10.2%	2	6.1%	0	-	17	8.4%	**17**	8.1%
	15-19	1	12.5%	8	21.6%	14	11.9%	3	9.1%	6	42.9%	31	15.3%	**32**	15.2%
	20-24	0	-	8	21.6%	14	11.9%	1	3.0%	0	-	23	11.4%	**23**	11.0%
	25-34	3	37.5%	1	2.7%	16	13.6%	6	18.2%	1	7.1%	24	11.9%	**27**	12.9%
	35-44	0	-	3	8.1%	12	10.2%	6	18.2%	3	21.4%	24	11.9%	**24**	11.4%
	45-54	1	12.5%	4	10.8%	16	13.6%	5	15.2%	0	-	25	12.4%	**26**	12.4%
	55-64	1	12.5%	1	2.7%	11	9.3%	5	15.2%	2	14.3%	19	9.4%	**20**	9.5%
	65+	2	25.0%	6	16.2%	12	10.2%	5	15.2%	0	-	23	11.4%	**25**	11.9%
	Not Stated	1	-	0	-	19	-	57	-	81	-	157	-	**158**	-
	Total Pedestrians*	**9**	**100%**	**37**	**100%**	**137**	**100%**	**90**	**100%**	**95**	**100%**	**359**	**100%**	**368**	100%

*Percentage of the total does not include the "not stated" category.

NOTE: In 2009, there was one minimal injury to a person aged 35 to 44 and one serious injury to a person aged 65 or older in the class "Riding/Hanging On". There is also one victim who received a minor injury who is not specified by age or by road user class. These three victims are not included in Table 5-8.

Table 5-10a Victims by Road User Class and Age Group and Casualty Type for Previous Five Years

Table 5-10a

Victims by Road User Class and Age Group and Casualty Type: 2004 to 2008 Average

Age Group		2004-2008 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims
Driver	0-4	0	0	1	1	1	3	**3**	<0.1%
	5-9	0	0	2	1	0	4	**4**	<0.1%
	10-14	0	3	5	3	1	11	**11**	0.2%
	15-19	7	29	257	198	10	493	**500**	10.9%
	20-24	9	28	265	270	15	577	**586**	12.8%
	25-34	9	37	361	442	18	857	**866**	19.0%
	35-44	8	38	381	523	22	963	**972**	21.3%
	45-54	8	31	306	460	25	821	**829**	18.1%
	55-64	5	26	172	260	11	470	**475**	10.4%
	65+	11	29	141	135	6	311	**322**	7.0%
	Not Stated	2	8	80	517	433	1,038	**1,039**	-
	Total Drivers*	**59**	**228**	**1,972**	**2,809**	**540**	**5,549**	**5,608**	100%
Passenger	0-4	1	3	47	27	1	78	**79**	4.1%
	5-9	0	3	66	47	2	118	**118**	6.1%
	10-14	1	7	93	72	2	174	**175**	9.1%
	15-19	4	22	205	123	8	358	**362**	18.8%
	20-24	4	18	114	84	7	222	**226**	11.8%
	25-34	5	19	121	108	8	257	**262**	13.6%
	35-44	3	15	101	95	4	216	**220**	11.4%
	45-54	4	13	90	84	5	192	**196**	10.2%
	55-64	1	7	56	61	3	128	**129**	6.7%
	65+	4	15	78	57	3	153	**157**	8.2%
	Not Stated	1	4	53	126	106	288	**289**	-
	Total Passengers*	**28**	**126**	**1,023**	**886**	**149**	**2,184**	**2,212**	100%
Motorcyclist	0-4	0	0	0	0	0	0	**0**	0.4%
	5-9	0	0	0	0	0	0	**0**	0.4%
	10-14	0	0	1	0	0	1	**1**	1.2%
	15-19	0	0	5	2	0	7	**8**	7.7%
	20-24	0	3	10	4	1	18	**18**	18.0%
	25-34	0	4	10	4	1	18	**18**	18.6%
	35-44	1	3	8	4	1	17	**18**	17.8%
	45-54	0	5	11	4	0	22	**22**	22.3%
	55-64	1	4	5	2	0	11	**12**	12.3%
	65+	0	0	1	0	0	1	**1**	1.2%
	Not Stated	0	1	4	12	10	27	**27**	-
	Total Motorcyclists*	**3**	**21**	**54**	**35**	**13**	**123**	**126**	100%

(Continued next page)

(Continued from previous page)

Age Group		2004-2008 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims
Moped	0-4	0	0	0	0	0	0	**0**	-
	5-9	0	0	0	0	0	0	**0**	-
	10-14	0	0	0	0	0	0	**0**	-
	15-19	0	0	0	0	0	0	**0**	13.3%
	20-24	0	0	0	0	0	0	**0**	6.7%
	25-34	0	0	0	0	0	0	**0**	13.3%
	35-44	0	0	1	0	0	1	**1**	26.7%
	45-54	0	0	0	0	0	1	**1**	26.7%
	55-64	0	0	0	0	0	0	**0**	6.7%
	65+	0	0	0	0	0	0	**0**	6.7%
	Not Stated	0	0	0	1	0	1	**1**	-
	Total Moped*	**0**	**1**	**2**	**1**	**0**	**4**	**4**	100%
Bicyclist	0-4	0	0	1	0	0	1	**1**	0.5%
	5-9	0	1	9	1	0	12	**12**	7.3%
	10-14	0	3	19	7	0	29	**29**	18.1%
	15-19	0	2	16	7	0	25	**25**	15.8%
	20-24	1	0	11	7	1	20	**20**	12.5%
	25-34	0	1	15	5	1	21	**21**	13.0%
	35-44	0	2	14	5	0	21	**22**	13.4%
	45-54	1	1	12	6	0	20	**20**	12.7%
	55-64	0	1	4	2	0	7	**7**	4.5%
	65+	0	0	2	1	0	3	**4**	2.2%
	Not Stated	0	1	6	62	42	111	**112**	-
	Total Bicyclists*	**3**	**12**	**109**	**103**	**46**	**270**	**273**	100%
Pedestrian	0-4	1	1	5	1	0	8	**9**	3.1%
	5-9	0	3	15	1	2	21	**21**	7.3%
	10-14	0	4	20	4	2	30	**31**	10.5%
	15-19	1	6	22	5	1	35	**36**	12.2%
	20-24	2	4	15	7	2	27	**29**	10.0%
	25-34	2	7	21	8	1	38	**40**	13.7%
	35-44	1	8	15	9	2	34	**35**	12.2%
	45-54	2	6	20	6	1	33	**35**	11.9%
	55-64	0	4	13	3	1	21	**21**	7.3%
	65+	3	8	18	3	2	31	**35**	11.9%
	Not Stated	2	3	14	86	65	169	**171**	-
	Total Pedestrians*	**14**	**53**	**179**	**135**	**81**	**448**	**462**	100%

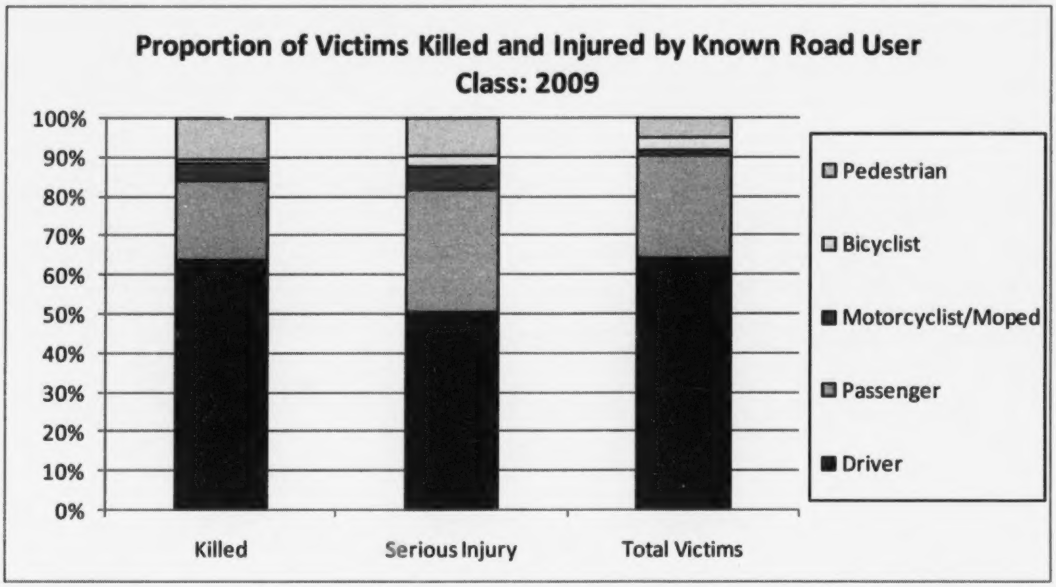
*Percentage of the total does not include the "not stated" category.

NOTE: The road user class "Riding/Hanging On" has not been reported in the above as there are too few victims in this class to report in any meaningful fashion. In 2004 to 2008 on average, there are three injuries in this road user class, one minor, one minimal and one unspecified.

In 2009, "Drivers" account for 64% of all casualties and motor vehicle "Passengers" for 26%. "Pedestrians" (5% of all casualties) and "Bicyclists" (3%) are the next largest "Road User Class" victim groups. While motorcyclists (including moped riders) account for less than 2% of all casualties overall, they account for a disproportionate number of victims killed (nearly 5%) and victims seriously injured (just over 6%).

Note: Counts for "Motorcyclist", "Bicyclist" and "Moped" include passengers on those vehicles.

Figure 5-8 Proportion of Victims Killed and Injured by Road User Class



Pedestrians and motorcyclists/mopeds account for a much higher proportion of victims killed and seriously injured than they represent among all victims in traffic collisions.

- In terms of victims killed in traffic collisions, "Drivers" account for the largest proportion in 2009 at 64%, followed by motor vehicle "Passengers" at 20%, "Pedestrians" at 11% and "Motorcyclists"/"Mopeds" at 5%.
- In terms of victims seriously injured in traffic collisions, "Drivers" account for the largest proportion in 2009 at 50%, followed by motor vehicle "Passengers" at 31%, "Pedestrians" at 10% and "Motorcyclists"/"Mopeds" at 6%.

Table 5-11 Collision Victims by Collision Type and Casualty Type

Table 5-11
Total Victims by Collision Type and Casualty Type: 2009

Collision Type	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Collision with pedestrian	9	10.5%	37	9.6%	140	4.9%	94	2.9%	95	13.7%	366	5.1%	**375**	5.1%
Collision with other motor vehicle	34	39.5%	152	39.6%	1,778	62.3%	2,595	78.9%	418	60.5%	4,943	68.5%	**4,977**	68.2%
Collisions with train	2	2.3%	1	0.3%	1	<0.1%	2	<0.1%	0	-	4	<0.1%	**6**	<0.1%
Collision with motorcycle	4	4.7%	19	4.9%	44	1.5%	36	1.1%	10	1.4%	109	1.5%	**113**	1.5%
Collision with animal drawn vehicle	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Collision with bicycle	1	1.2%	10	2.6%	73	2.6%	79	2.4%	68	9.8%	230	3.2%	**231**	3.2%
Collision with animal	0	-	7	1.8%	58	2.0%	124	3.8%	13	1.9%	202	2.8%	**202**	2.8%
Collision with fixed object	6	7.0%	24	6.3%	104	3.6%	116	3.5%	33	4.8%	277	3.8%	**283**	3.9%
Collision with other object	4	4.7%	8	2.1%	28	1.0%	10	0.3%	0	-	46	0.6%	**50**	0.7%
Overturned in roadway	13	15.1%	30	7.8%	143	5.0%	53	1.6%	5	0.7%	231	3.2%	**244**	3.3%
Ran off roadway	13	15.1%	96	25.0%	481	16.9%	177	5.4%	49	7.1%	803	11.1%	**816**	11.2%
Collision with moped	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Other non-collision	0	-	0	-	3	0.1%	2	<0.1%	0	-	5	<0.1%	**5**	<0.1%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-11a Victims by Collision Type and Casualty Type for Previous Five Years

Table 5-11a

Victims by Collision Type and Casualty Type: 2004 to 2008 Average

Collision Type	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Collision with pedestrian	15	52	181	141	83	457	471	5.4%
Collision with other motor vehicle	43	181	2,084	3,117	609	5,991	6,034	69.4%
Collisions with train	2	2	7	1	0	11	13	0.1%
Collision with motorcycle	3	19	53	34	12	119	122	1.4%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	-
Collision with bicycle	3	13	112	109	47	280	283	3.3%
Collision with animal	0	8	76	116	8	208	208	2.4%
Collision with fixed object	5	20	143	130	27	321	326	3.8%
Collision with other object	4	12	34	31	6	83	88	1.0%
Overturned in roadway	8	29	124	55	6	213	221	2.5%
Ran off roadway	23	105	521	231	31	888	911	10.5%
Collision with moped	0	0	0	0	0	0	0	-
Other non-collision	0	1	5	5	1	12	12	0.1%
Total	106	442	3,341	3,970	830	8,583	8,690	100%

Motor vehicles colliding with other motor vehicles account for the majority of casualties in Manitoba, both in 2009 and in the previous five years (2004 to 2008) on average. In 2009, "collision with other motor vehicle" accounts for:

- 68% of all casualties (69% in the previous five years);
- Nearly 40% of victims killed (40% in the previous five years); and,
- 40% of victims seriously injured (41% in the previous five years).

"Collision with a pedestrian" and "collision with motorcycle" both account for a much higher proportion of victims killed than of victims injured in traffic collisions. In 2009, "collision with pedestrian" accounts for more than twice as many victims killed (11% of total killed) as it does of victims injured (5% of total injured). "Collision with motorcycle" accounts for three times as many victims killed (5% of total killed) as it does of victims injured (less than less than 2% of total injured).

Table 5-12 Collision Victims by Accident Configuration and Casualty Type

Table 5-12
Total Victims by Accident Configuration and Casualty Type: 2009

Accident Configuration	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Rear End	3	4.1%	20	7.2%	594	27.8%	1,292	49.6%	153	35.4%	2,059	37.8%	**2,062**	37.4%
Head On	12	16.4%	19	6.9%	56	2.6%	40	1.5%	7	1.6%	122	2.2%	**134**	2.4%
Side Swipe Opposing	1	1.4%	1	0.4%	32	1.5%	27	1.0%	4	0.9%	64	1.2%	**65**	1.2%
Side Swipe Same Direction	0	-	3	1.1%	38	1.8%	93	3.6%	8	1.9%	142	2.6%	**142**	2.6%
Overtaking	1	1.4%	2	0.7%	22	1.0%	33	1.3%	6	1.4%	63	1.2%	**64**	1.2%
Right Turn - Same direction	0	-	1	0.4%	8	0.4%	16	0.6%	2	0.5%	27	0.5%	**27**	0.5%
Right Turn - Opposing	0	-	0	-	3	0.1%	4	0.2%	3	0.7%	10	0.2%	**10**	0.2%
Left Turn - Opposing	1	1.4%	1	0.4%	26	1.2%	23	0.9%	2	0.5%	52	1.0%	**53**	1.0%
Left Turn - Same direction	0	-	0	-	19	0.9%	18	0.7%	3	0.7%	40	0.7%	**40**	0.7%
Left Turn - Across	2	2.7%	16	5.8%	175	8.2%	191	7.3%	22	5.1%	404	7.4%	**406**	7.4%
Intersection 90°	17	23.3%	74	26.7%	551	25.8%	545	20.9%	78	18.1%	1,248	22.9%	**1,265**	22.9%
Off Road Right	15	20.5%	51	18.4%	237	11.1%	101	3.9%	11	2.5%	400	7.3%	**415**	7.5%
Off Road Left	8	11.0%	37	13.4%	178	8.3%	57	2.2%	16	3.7%	288	5.3%	**296**	5.4%
Fixed Object	4	5.5%	17	6.1%	56	2.6%	73	2.8%	23	5.3%	169	3.1%	**173**	3.1%
Parking	0	-	0	-	2	<0.1%	11	0.4%	0	-	13	0.2%	**13**	0.2%
Pedestrian	9	12.3%	35	12.6%	137	6.4%	80	3.1%	94	21.8%	346	6.4%	**355**	6.4%
Other	13	-	107	-	719	-	684	-	259	-	1,769	-	**1,782**	-
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Note: "Other" accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in "% of Total" exclude the "Other" category.

Table 5-12a Victims by Accident Configuration and Casualty Type for Previous Five Years

Table 5-12a

Victims by Accident Configuration and Casualty Type: 2004 to 2008 Average

Accident Configuration	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Rear End	6	33	673	1,600	237	2,543	2,548	36.9%
Head On	18	29	81	45	12	166	184	2.7%
Side Swipe Opposing	1	5	37	36	6	84	86	1.2%
Side Swipe Same Direction	1	6	54	98	16	174	175	2.5%
Overtaking	0	2	37	44	10	93	93	1.3%
Right Turn - Same direction	0	1	14	21	4	40	41	0.6%
Right Turn - Opposing	0	0	10	11	3	24	24	0.3%
Left Turn - Opposing	0	5	35	38	11	88	88	1.3%
Left Turn - Same direction	0	1	19	22	3	45	45	0.7%
Left Turn - Across	1	14	197	212	46	469	470	6.8%
Intersection 90°	15	77	685	664	137	1,563	1,578	22.8%
Off Road Right	15	60	292	131	15	498	513	7.4%
Off Road Left	14	49	221	107	12	388	402	5.8%
Fixed Object	4	12	89	88	15	203	207	3.0%
Parking	0	2	10	18	2	31	31	0.4%
Pedestrian	12	45	165	130	79	419	431	6.2%
Other	19	102	723	705	224	1,755	1,775	-
Total	106	442	3,341	3,970	830	8,583	8,690	100%

Note: "Other" accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in "% of Total" exclude the "Other" category.

"Rear end" collisions and those occurring at 90° intersections account for the highest proportions of total victims, followed by collisions where the vehicle leaves the road (either in the right or left). In 2009:

- "Rear end" accounts for 37% of all victims, 4% of victims killed and 7% of victims seriously injured;
- "Intersection 90°" accounts for 23% of all victims, 23% of victims killed and 27% of victims seriously injured; and,
- "Off road" (either right or left) accounts for 13% of all victims, nearly 32% of victims killed and 32% of victims seriously injured.

Victims are most often killed in traffic collisions where the vehicle leaves the road, meets another vehicle head on or at 90° intersections, or hits a pedestrian. In 2009:

- A vehicle going "Off road" (either right or left) accounts for nearly 32% of victims killed;
- Collisions at 90° intersections account for 23% of victims killed;
- "Head on" collisions account for 16% of victims killed; and,
- "Pedestrian" collisions account for 12% of victims killed.

Table 5-13 Collision Victims by Provincial Location and Casualty Type

Table 5-13

Total Victims by Provincial Location and Casualty Type: 2009

Location	2009 Casualty Type												2009 Total Victims	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Winnipeg	12	14.0%	104	27.1%	1,308	45.8%	2,401	73.0%	565	81.8%	4,378	60.7%	**4,390**	60.1%
Brandon	1	1.2%	10	2.6%	159	5.6%	74	2.3%	15	2.2%	258	3.6%	**259**	3.5%
Portage	0	-	2	0.5%	22	0.8%	8	0.2%	7	1.0%	39	0.5%	**39**	0.5%
Flin Flon	0	-	0	-	16	0.6%	7	0.2%	0	-	23	0.3%	**23**	0.3%
Dauphin	0	-	4	1.0%	20	0.7%	21	0.6%	0	-	45	0.6%	**45**	0.6%
Thompson	0	-	1	0.3%	20	0.7%	8	0.2%	3	0.4%	32	0.4%	**32**	0.4%
The Pas	0	-	2	0.5%	7	0.2%	7	0.2%	2	0.3%	18	0.2%	**18**	0.2%
Selkirk	0	-	1	0.3%	23	0.8%	26	0.8%	2	0.3%	52	0.7%	**52**	0.7%
Other Urban	7	8.1%	34	8.9%	201	7.0%	173	5.3%	17	2.5%	425	5.9%	**432**	5.9%
All Rural	66	76.7%	226	58.9%	1,077	37.7%	563	17.1%	80	11.6%	1,946	27.0%	**2,012**	27.6%
Total	86	100%	384	100%	2,853	100%	3,288	100%	691	100%	7,216	100%	**7,302**	100%

Table 5-13a Victims by Provincial Location and Casualty Type for Previous Five Years

Table 5-13a

Victims by Provincial Location and Casualty: 2004 to 2008 Average

Location	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Winnipeg	20	114	1,661	2,984	705	5,464	5,484	63.1%
Brandon	1	9	144	119	13	285	286	3.3%
Portage	1	5	44	25	3	77	78	0.9%
Flin Flon	0	0	9	4	3	16	16	0.2%
Dauphin	0	4	25	13	2	43	43	0.5%
Thompson	0	1	22	11	2	36	36	0.4%
The Pas	0	2	14	5	1	22	22	0.3%
Selkirk	0	1	18	19	5	43	43	0.5%
Other Urban	9	41	297	213	26	577	586	6.7%
All Rural	75	266	1,106	577	71	2,020	2,096	24.1%
Total	106	442	3,341	3,970	830	8,583	8,690	100%

While traffic collisions occurring in urban locations account for the majority of victims overall, traffic collisions in rural locations account for the majority of victims killed and seriously injured. In 2009, 72% of all casualties resulted from traffic collisions occurring in urban areas. Traffic collisions occurring in rural locations, however, accounted for 77% of the victims killed and 59% of the victims seriously injured. In the previous five years (2004 to 2008) on average, 76% of all victims resulted from traffic collisions in urban locations while 71% of the victims killed and 60% of the victims seriously injured resulted from traffic collisions in rural locations.

Table 5-14 Vehicle Occupant Victims by Safety Equipment Use and Casualty Type

Table 5-14

Vehicle Occupant Victims by Safety Equipment Use and Casualty Type: 2009

Safety Equipment	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Lap belt only installed - In use	5	6.6%	18	5.4%	184	7.0%	160	5.1%	9	1.7%	371	5.6%	**376**	5.6%
Lap belt only installed - Not in use	1	1.3%	3	0.9%	16	0.6%	6	0.2%	0	-	25	0.4%	**26**	0.4%
Shoulder belt only installed - In use	2	2.6%	4	1.2%	66	2.5%	37	1.2%	2	0.4%	109	1.6%	**111**	1.7%
Shoulder belt only installed - Not in use	4	5.3%	2	0.6%	10	0.4%	2	<0.1%	0	-	14	0.2%	**18**	0.3%
Lap and shoulder belt assembly - In use	25	32.9%	183	55.0%	1,932	73.2%	2,470	79.1%	158	29.9%	4,743	71.6%	**4,768**	71.2%
Combined belt installed - Not in use	15	19.7%	40	12.0%	81	3.1%	25	0.8%	1	0.2%	147	2.2%	**162**	2.4%
Only lap part of full assembly in use	0	-	1	0.3%	4	0.2%	0	-	0	-	5	<0.1%	**5**	<0.1%
Air bag deployed - Safety belt in use	5	6.6%	20	6.0%	122	4.6%	52	1.7%	6	1.1%	200	3.0%	**205**	3.1%
Air bar deployed - Safety belt not use	0	-	1	0.3%	3	0.1%	3	<0.1%	1	0.2%	8	0.1%	**8**	0.1%
Safety seat properly installed - In use	0	-	5	1.5%	34	1.3%	22	0.7%	3	0.6%	64	1.0%	**64**	1.0%
Safety seat imporperly installed - In use	0	-	0	-	1	<0.1%	0	-	0	-	1	<0.1%	**1**	<0.1%
Safety seat installed - Not in use	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Safety helmet worn	2	2.6%	16	4.8%	37	1.4%	15	0.5%	2	0.4%	70	1.1%	**72**	1.1%
Safety helmet not worn	2	2.6%	0	-	4	0.2%	1	<0.1%	0	-	5	<0.1%	**7**	0.1%
No safety device available	0	-	4	1.2%	5	0.2%	1	<0.1%	0	-	10	0.2%	**10**	0.1%
Other	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Not Applicable	0	-	3	0.9%	7	0.3%	4	0.1%	4	0.8%	18	0.3%	**18**	0.3%
Unknown	15	19.7%	33	9.9%	133	5.0%	326	10.4%	342	64.8%	834	12.6%	**849**	12.7%
Total	76	100%	333	100%	2,639	100%	3,124	100%	528	100%	6,624	100%	**6,700**	100%

NOTE: Vehicle occupants (Road User Class = Driver, Passenger) plus Motorcyclists and Moped riders and their passengers

Table 5-14a Victims by Safety Equipment Use and Casualty Type for Previous Five Years

Table 5-14a

Vehicle Occupant Victims by Safety Equipment Use and Casualty: 2004 to 2008 Average

Safety Equipment	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Lap belt only installed - In use	1	13	128	133	6	281	282	3.6%
Lap belt only installed - Not in use	2	7	17	8	0	32	34	0.4%
Shoulder belt only installed - In use	2	8	75	62	4	150	152	1.9%
Shoulder belt only installed - Not in use	3	6	21	12	1	40	43	0.5%
Lap and shoulder belt assembly - In use	31	202	2,291	2,791	172	5,456	5,487	69.8%
Combined belt installed - Not in use	23	50	88	35	4	178	201	2.6%
Only lap part of full assembly in use	0	1	5	2	0	7	7	<0.1%
Air bag deployed - Safety belt in use	3	14	111	44	4	172	175	2.2%
Air bar deployed - Safety belt not use	3	4	10	1	0	15	19	0.2%
Safety seat properly installed - In use	0	1	41	27	1	71	71	0.9%
Safety seat imporperly installed - In use	0	0	3	1	0	4	4	<0.1%
Safety seat installed - Not in use	0	0	1	0	0	2	2	<0.1%
Safety helmet worn	4	20	50	20	2			
Safety helmet not worn	2	3	3	1	0	8	10	0.1%
No safety device available	0	0	2	1	0	3	3	<0.1%
Other	0	0	0	0	0	0	0	-
Not Applicable	1	6	24	90	3	123	124	1.6%
Unknown	14	41	180	502	503	1,227	1,241	15.8%
Total	90	377	3,051	3,730	703	7,769	7,855	100%

NOTE: Vehicle occupants (Road User Class = Driver, Passenger) plus Motorcyclists and Moped riders and their passengers

Most victims in traffic collisions were using safety equipment at the time of the collision; 96% of all victims in 2009 where use of available safety equipment was known (i.e., excluding "other", "not applicable" and "unknown").

In 2009, 36% of the victims killed in traffic collisions and 17% of the victims seriously injured in traffic collisions were recorded as not wearing or using the available safety equipment at the time of the collision.

Table 5-15 Safety Equipment Effectiveness

Table 5-15

Safety Equipment Effectiveness - Ratio of Victims Killed and Injured While Using Safety Equipment to Not Using Safety Equipment: 2009

Safety Equipment Use	Total Casualties	Killed	% of Total Casualties	Serious Injury	% of Total Casualties	Minor/ Minimal Injury	% of Total Casualties	Other Injury	% of Total Casualties
Equipment not in use	231	22	9.5%	50	21.6%	157	68.0%	2	0.9%
Equipment in use	5,602	39	0.7%	247	4.4%	5,136	91.7%	180	3.2%
Safety Equipment Effectiveness*			**13.68**		**4.91**		**0.74**		**0.27**

*Ratio of % not using equipment over the % using equipment.

As the number of victims in traffic collisions who use safety equipment (such as seatbelts, child restraints and helmets) exceeds the number of those who did not use safety equipment, one might conclude that using safety equipment contributes to more victims. However, a large majority of total drivers and passengers use safety equipment, and thus have a higher representation among collision victims.

When considering the effectiveness of safety equipment in a traffic collision, the total proportion of victims by casualty type who use safety equipment is compared to the proportion of victims by casualty type not using that equipment. In this manner, it is possible to determine the effectiveness of the equipment by examining how much more likely the victim is to sustain injuries of a specific severity when using or not using safety equipment.

As shown in Table 5-13, in 2009, victims not using safety equipment are almost 14 times more likely to be killed and nearly 5 times more likely to be seriously injured in a traffic collision than those who used the equipment.

Table 5-16 Vehicle Occupant Victim Ejections in Traffic Collision

Table 5-16

Vehicle Occupant Victims by Ejection From Vehicle and Casualty Type: 2009

Ejection	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Not Ejected	50	69.4%	280	89.7%	2534	97.6%	3067	99.3%	517	99.4%	6398	98.2%	6448	97.9%
Fully Ejected	16	22.2%	25	8.0%	58	2.2%	20	0.6%	2	0.4%	105	1.6%	121	1.8%
Partially Ejected	6	8.3%	7	2.2%	4	0.2%	1	<0.1%	1	0.2%	13	0.2%	19	0.3%
Total	72	100%	312	100%	2,596	100%	3,088	100%	520	100%	6,516	100%	6,588	100%

Table 5-16a Vehicle Occupant Victim Ejections in Traffic Collision for Previous Five Years

Table 5-16a

Vehicle Occupant Victims by Ejection From Vehicle and Casualty: 2004 to 2008 Average

Ejection	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Not Ejected	60	305	2,941	3,670	686	7,603	7,663	98.0%
Fully Ejected	23	44	46	23	3	115	138	1.8%
Partially Ejected	4	5	7	2	1	16	19	0.2%
Total	86	355	2,995	3,695	690	7,734	7,820	100%

Most victims in traffic collisions are not ejected from the vehicle they are travelling in.

However, in 2009, victims ejected or partially ejected from a vehicle during a traffic collision are 20 times more likely to be killed and more than 5 times more likely to be seriously injured than those who were not ejected during the collision.

SECTION 6 – Pedestrian Victims

Introduction

This section calculates the number of pedestrians killed and injured in traffic collisions and examines the severity of the injury received by the pedestrian. Month, time and day of occurrences are examined and breaks are provided for the age of the pedestrian. The specific pedestrian actions taken immediately prior to the collision are also presented. Relative involvement of pedestrians in traffic collisions per 100,000 people in the general population is also calculated.

Key Highlights
In 2009, there were 368 pedestrians killed or injured in traffic collisions. Of these:

- 9 were killed;
- 37 were seriously injured;
- 137 sustained minor injuries;
- 90 sustained minimal injuries; and
- 95 sustained injuries that are undefined in terms of severity.

The relative involvement (per 100,000 people in the general population) of pedestrians in traffic collisions in 2009 (30.3) has decreased by 17% compared to 2008 and by more than 22% compared to the previous five years (2004 to 2008) on average. Pedestrian involvement in traffic collisions in 2009 where the pedestrian:

- Was killed (0.7 in 2009) has decreased 41% compared to 2008 and by 38% compared to the previous five years; and,
- Was injured (29.6 in 2009) has decreased by 16% compared to 2008 and by 22% compared to the previous five years.

Three in ten pedestrians killed and injured in 2009 were under 20 years of age (31%) while nearly half were between the ages of 20 and 54 (48%). Adults aged 55 to 64 make nearly 10% of pedestrian victims and those aged 65 and older make up 12%.

In 2009, collisions involving pedestrians most frequently occur:

- In March, October and November (11%, 12% and 11%, respectively, of all pedestrians killed or injured (although 4 of 9 pedestrians were killed in August and September);
- On weekdays, particularly Tuesday (16% of all victims), Thursday (20% of all victims) and Friday (18% of all victims); and,
- Between noon and 6 p.m. (12:00-14:59 – 24% of all victims; 15:00 to 17:59 – 25% of all victims).

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrians injured in a traffic collision in 2009 were:

- At an intersection, crossing with the right of way (40% of pedestrians injured; none among those killed) or without the right of way (14% of pedestrians injured; none among of those killed);
- Running into the roadway (15% of pedestrians injured; none among those killed); or,
- Between intersections, crossing the roadway (10% of pedestrians injured; none among those killed).

For most pedestrians killed in traffic collisions in 2009 (5 of 9 killed), it is not known what the pedestrian was doing immediately prior to the collision. Three of the others killed were walking along the roadway, either against traffic (one) or on the travelled portion of the roadway (two).

Major Elements Examined
Counts of collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

It is important to note that the number of pedestrian victims in traffic collisions is not equal to the number of collisions that occurred involving pedestrians as each collision can result in multiple victims.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report. The terms 'victims' and 'casualties' are used interchangeably in this report. The terms 'fatality' and 'killed' are used interchangeably in this report.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding pedestrian collisions of differing injury severity.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percent. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Terms and Definitions

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal (i.e., victims injured but not killed) injury sustained.

"Killed"

- The casualty type "killed" indicates the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Pedestrian Involvement Rate"

- A calculation of the number of pedestrians involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Pedestrian Action"

- Refers to the actions taken by a pedestrian immediately prior to a collision (including: crossing at an intersection with or without the right-of-way, crossing between intersections, running into the roadway, walking on the roadway, lying on the roadway, playing on the roadway, etc.).

Table 6-1 Ten Year Summary of Pedestrians Killed and Injured in Traffic Collisions

Table 6-1
Historical Summary of Pedestrians Killed and Injured in Traffic Collisions: 1999 to 2009

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
1999	21	-	-	-	-	-	-	-	-	-	504	-	525	-
2000	15	-28.6%	-	-	-	-	-	-	-	-	484	-4.0%	499	-5.0%
2001	10	-33.3%	-	-	-	-	-	-	-	-	460	-5.0%	470	-5.8%
2002	14	40.0%	-	-	-	-	-	-	-	-	441	-4.1%	455	-3.2%
2003	13	-7.1%	51	-	207	-	192	-	59	-	509	15.4%	522	14.7%
2004	15	15.4%	57	11.8%	201	-2.9%	143	-25.5%	55	-6.8%	456	-10.4%	471	-9.8%
2005	11	-26.7%	36	-36.8%	173	-13.9%	152	6.3%	68	23.6%	429	-5.9%	440	-6.6%
2006	14	27.3%	71	97.2%	207	19.7%	141	-7.2%	83	22.1%	502	17.0%	516	17.3%
2007	16	14.3%	52	-26.8%	161	-22.2%	107	-24.1%	109	31.3%	429	-14.5%	445	-13.8%
2008	15	-6.3%	49	-5.8%	153	-5.0%	133	24.3%	88	-19.3%	423	-1.4%	438	-1.6%
2009	**9**	**-40.0%**	**37**	**-24.5%**	**137**	**-10.5%**	**90**	**-32.3%**	**95**	**8.0%**	**359**	**-15.1%**	**368**	**-16.0%**
2004-2008 Average*	14	4.8%	53	7.9%	179	-4.9%	135	-5.3%	81	10.2%	448	-3.1%	462	-2.9%

*The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

NOTE: A methodology change in how injury severity is reported has been implemented beginning in 2008. Historical figures were calculated for the years 2003 to 2007 for comparison purposes, but not for years prior to that time.

In 2009, there were 368 pedestrians killed and injured involved in traffic collisions. Of these:

- 9 were killed;
- 37 were seriously injured;
- 137 sustained minor injuries;
- 90 sustained minimal injuries; and
- 95 sustained injuries that are undefined in terms of severity.

The total number of pedestrians killed and injured in traffic collisions in 2009 has decreased by 16% compared to 2008 and by 20% compared to the previous five years (2004 to 2008) on average. The number of pedestrians:

- Killed has decreased by a count of 6 compared to 2008 and decreased by a count of 5 compared to the previous five years;
- Injured has decreased by 15% compared to 2008 and by 20% compared to the previous five years;
- Sustaining serious injuries has decreased by nearly 25% compared to 2008 and by 30% compared to the previous five years;
- Sustaining minor injuries has decreased by nearly 11% compared to 2008 and by nearly 24% compared to the previous five years; and,
- Sustaining minimal injuries has increased by 32% compared to 2008 and by 33% compared to the previous five years.

The number of pedestrians killed in traffic collisions over the past ten years has fluctuated, ranging from a high of 21 in 1999 to a low of 9 in 2009. The number pedestrians killed in 2009 is the lowest it has been since 2001 and is well below the count last year (15 in 2008) and in the previous five years on average (14 in 2004-2008).

Recognizing that counts of pedestrians involved in collisions could be impacted either positively or negatively by changing population statistics, relative involvement rates per 100,000 people in the general population in Manitoba is examined (see Table 6-2) to provide a standardized rate comparison. This accounts for changing population size instead of simply a raw count of the number of pedestrians involved overall.

Table 6-2 Ten Year Summary of Pedestrian Involvement Rate (per 100,000 people) in Traffic Collisions

Table 6-2

Historical Summary of Pedestrian Involvement Rates (per 100,000 people) in Traffic Collisions: 1999 to 2009

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
1999	1.8	-	-	-	-	-	-	-	-	-	44.0	-	45.9	-
2000	1.3	-28.9%	-	-	-	-	-	-	-	-	42.1	-4.4%	43.4	-5.4%
2001	0.9	-33.7%	-	-	-	-	-	-	-	-	39.8	-5.5%	40.6	-6.3%
2002	1.2	40.0%	-	-	-	-	-	-	-	-	38.1	-4.1%	39.4	-3.2%
2003	1.1	-7.4%	4.4	-	17.8	-	16.6	-	5.1	-	43.9	15.1%	45.0	14.4%
2004	1.3	14.4%	4.9	10.8%	17.2	-3.7%	12.2	-26.2%	4.7	-7.6%	39.0	-11.2%	40.3	-10.5%
2005	0.9	-26.9%	3.1	-37.1%	14.7	-14.2%	12.9	5.9%	5.8	23.2%	36.5	-6.3%	37.5	-6.9%
2006	1.2	26.8%	6.0	96.4%	17.6	19.2%	12.0	-7.6%	7.0	21.6%	42.6	16.6%	43.8	16.8%
2007	1.3	13.5%	4.4	-27.3%	13.6	-22.7%	9.0	-24.6%	9.2	30.4%	36.2	-15.1%	37.5	-14.3%
2008	1.3	-7.2%	4.1	-6.8%	12.8	-6.0%	11.1	23.0%	7.3	-20.1%	35.3	-2.4%	36.5	-2.6%
2009	**0.7**	**-40.8%**	**3.0**	**-25.4%**	**11.3**	**-11.6%**	**7.4**	**-33.2%**	**7.8**	**6.6%**	**29.6**	**-16.2%**	**30.3**	**-17.0%**
2004-2008 Average*	1.2	4.1%	4.5	7.2%	15.2	-5.5%	11.5	-5.9%	6.8	9.5%	37.9	-3.7%	39.1	-3.5%

*The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

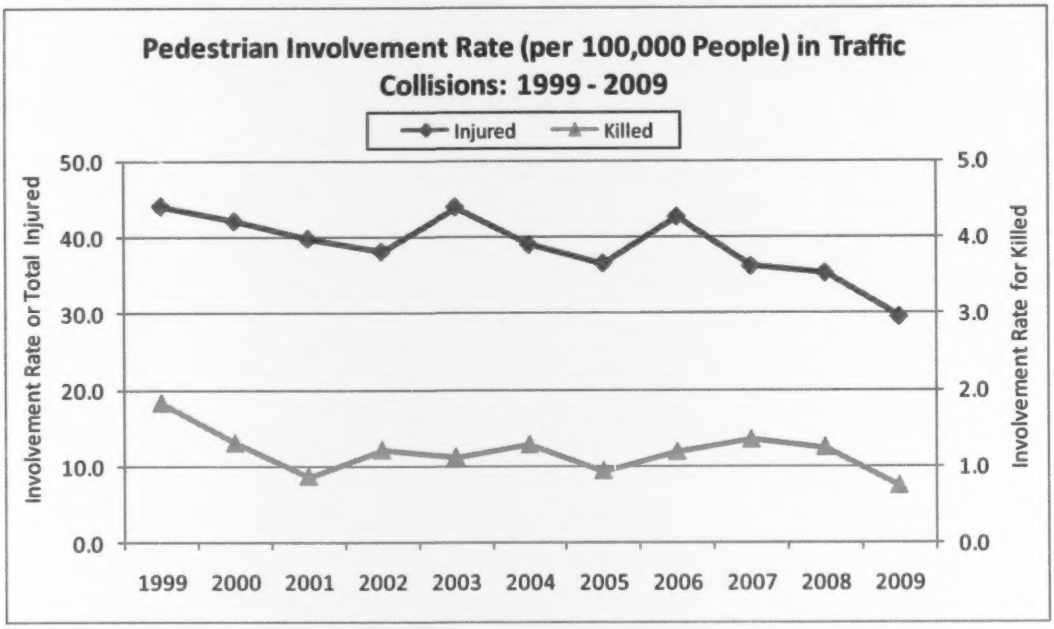
NOTE: A methodology change in how injury severity is reported has been implemented beginning in 2008. Historical figures were calculated for the years 2003 to 2007 for comparison purposes, but not for years prior to that time.

The relative involvement (per 100,000 people in the general population) of pedestrians in traffic collisions in 2009 (30.3) has decreased by 17% compared to 2008 and by more than 22% compared to the previous five years (2004 to 2008) on average.

Pedestrian relative involvement in fatal and injury collisions has decreased compared to the recent five year trend. Pedestrian relative involvement in traffic collisions in 2009 where the pedestrian:

- Was killed (0.7 in 2009) has decreased 41% compared to 2008 and by 38% compared to the previous five years;
- Was injured (29.6 in 2009) has decreased by 16% compared to 2008 and by 22% compared to the previous five years;
- Sustained serious injuries (3.0 in 2009) has decreased by 25% compared to 2008 and by 32% compared to the previous five years;
- Sustained minor injuries (11.3 in 2009) has decreased by nearly 12% compared to 2008 and by nearly 26% compared to the previous five years;
- Sustained minimal injuries (7.4 in 2009) has decreased by 33% compared to 2008 and by 35% compared to the previous five years; and,
- Sustained an unspecified injury (7.8 in 2009) has increased by nearly 7% compared to 2008 and by 15% compared to the previous five years.

Figure 6-1 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions



Over the last eleven years (1999 to 2009), pedestrian injuries resulting from traffic collisions have generally declined. With the exception of 2003 and 2006, each year in the past eleven has seen a decrease in the pedestrian involvement rate. The year 2009 represents the lowest pedestrian involvement rate for injuries recorded in the past eleven years.

Over this same time frame, the involvement rate for pedestrians killed in traffic collisions has fluctuated. The involvement rate in 2009 is the lowest pedestrian involvement rate for deaths recorded in the past eleven years.

Table 6-3 Pedestrians Killed and Injured by Month of Occurrence and Casualty Type

Table 6-3
Total Pedestrians Killed and Injured by Month of Occurrence and Casualty Type: 2009

Month of Occurrence	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	0	-	3	8.1%	15	10.9%	4	4.4%	10	10.5%	32	8.9%	**32**	8.7%
February	0	-	5	13.5%	5	3.6%	7	7.8%	2	2.1%	19	5.3%	**19**	5.2%
March	1	11.1%	4	10.8%	16	11.7%	10	11.1%	10	10.5%	40	11.1%	**41**	11.1%
April	0	-	3	8.1%	10	7.3%	7	7.8%	13	13.7%	33	9.2%	**33**	9.0%
May	1	11.1%	1	2.7%	9	6.6%	10	11.1%	4	4.2%	24	6.7%	**25**	6.8%
June	0	-	3	8.1%	11	8.0%	5	5.6%	13	13.7%	32	8.9%	**32**	8.7%
July	0	-	1	2.7%	11	8.0%	8	8.9%	3	3.2%	23	6.4%	**23**	6.3%
August	2	22.2%	3	8.1%	6	4.4%	3	3.3%	8	8.4%	20	5.6%	**22**	6.0%
September	2	22.2%	1	2.7%	9	6.6%	10	11.1%	7	7.4%	27	7.5%	**29**	7.9%
October	0	-	7	18.9%	18	13.1%	10	11.1%	8	8.4%	43	12.0%	**43**	11.7%
November	1	11.1%	4	10.8%	18	13.1%	10	11.1%	8	8.4%	40	11.1%	**41**	11.1%
December	2	22.2%	2	5.4%	9	6.6%	6	6.7%	9	9.5%	26	7.2%	**28**	7.6%
Total	9	100%	37	100%	137	100%	90	100%	95	100%	359	100%	**368**	100%

Table 6-3a Pedestrians Killed and Injured by Month of Occurrence and Casualty Type for Previous Five Years

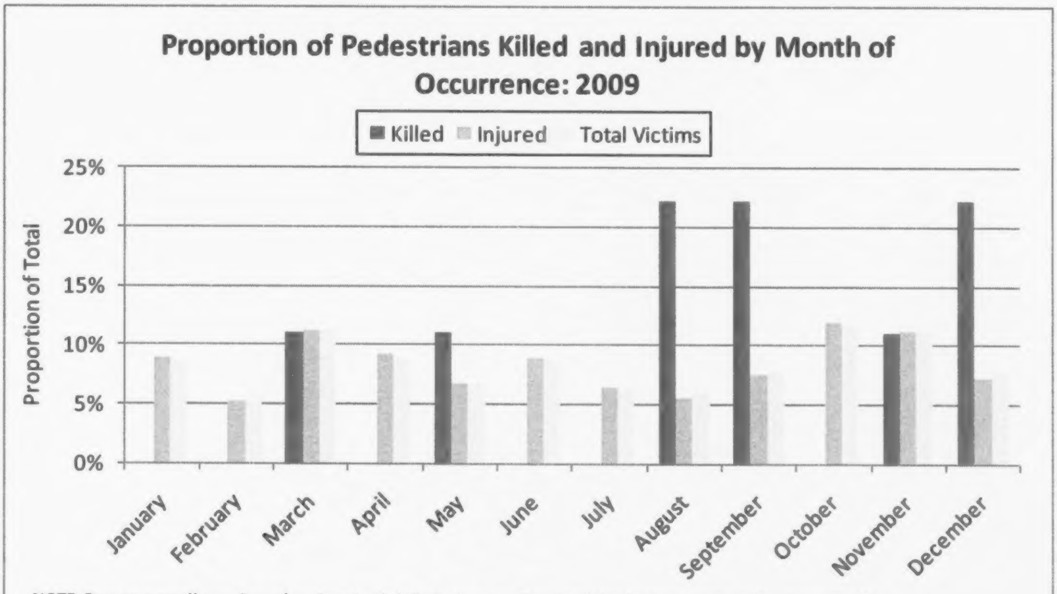
Table 6-3a

Pedestrians Killed and Injured by Month of Occurrence and Casualty Type: 2004 to 2008 Average

Month of Occurrence	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims
January	0	5	16	11	7	39	**40**	8.6%
February	1	5	16	13	8	43	**44**	9.6%
March	1	5	17	10	6	38	**39**	8.4%
April	1	4	14	12	6	36	**37**	8.0%
May	1	5	13	11	5	34	**35**	7.5%
June	2	3	15	11	8	37	**38**	8.3%
July	1	4	13	9	4	30	**31**	6.7%
August	2	3	12	9	6	31	**33**	7.1%
September	2	3	14	11	7	35	**37**	8.0%
October	2	6	18	13	7	44	**46**	9.9%
November	2	6	18	14	8	46	**47**	10.3%
December	1	4	13	10	8	35	**36**	7.8%
Total	14	53	179	135	81	448	**462**	100%

In 2009, pedestrians are killed and injured in collisions most frequently in March, October and November (11%, 12% and 11%, respectively, of all pedestrians killed or injured), although 4 of 9 pedestrians were killed in August and September. During the previous five years (2004 to 2008) on average, 36% of pedestrian victims were involved in traffic collisions from November through February, inclusive, with March accounting for 8% of all pedestrian victims.

Figure 6-2 Proportion of Pedestrians Killed and Injured by Month of Occurrence



NOTE: Due to a small number of pedestriands killed, nine, caution is advised when interpreting those results

Table 6-4 Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type

Table 6-4
Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2009

Day of the Week	2009 Casualty Type												**2009 Total Victims**	% 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Sunday	3	33.3%	9	24.3%	9	6.6%	9	10.0%	8	8.4%	35	9.7%	**38**	10.3%
Monday	0	-	1	2.7%	20	14.6%	8	8.9%	14	14.7%	43	12.0%	**43**	11.7%
Tuesday	1	11.1%	3	8.1%	26	19.0%	13	14.4%	16	16.8%	58	16.2%	**59**	16.0%
Wednesday	1	11.1%	3	8.1%	14	10.2%	17	18.9%	16	16.8%	50	13.9%	**51**	13.9%
Thursday	1	11.1%	8	21.6%	31	22.6%	17	18.9%	17	17.9%	73	20.3%	**74**	20.1%
Friday	2	22.2%	9	24.3%	22	16.1%	21	23.3%	13	13.7%	65	18.1%	**67**	18.2%
Saturday	1	11.1%	4	10.8%	15	10.9%	5	5.6%	11	11.6%	35	9.7%	**36**	9.8%
Total	9	100%	37	100%	137	100%	90	100%	95	100%	359	100%	**368**	100%

Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years

Table 6-4a

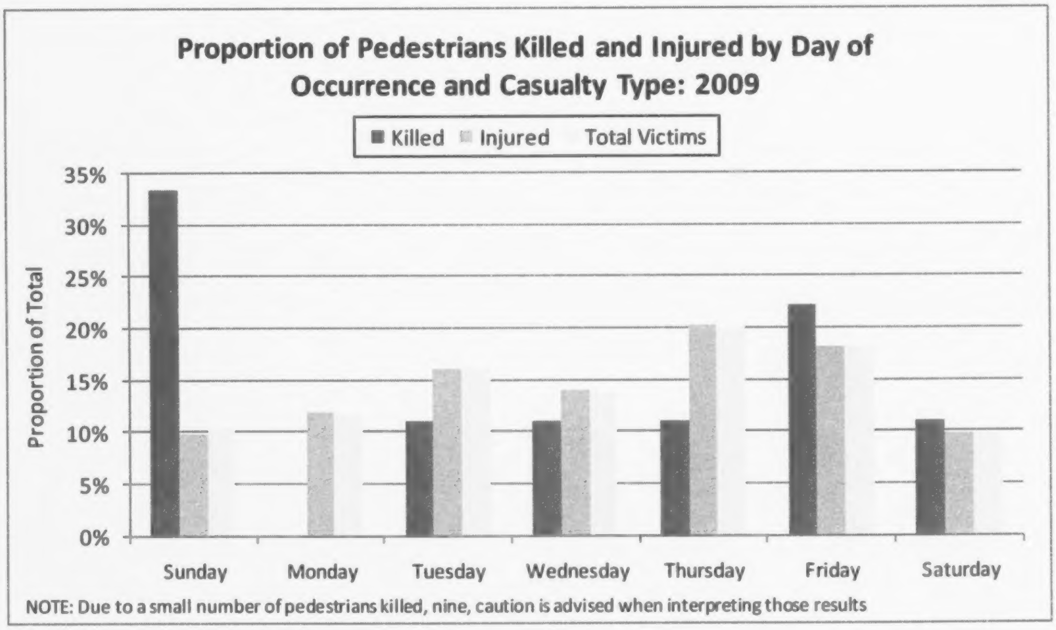
Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2004 to 2008 Average

Day of the Week	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims
Sunday	2	5	12	9	6	33	**35**	7.6%
Monday	2	5	26	24	12	67	**69**	15.0%
Tuesday	1	10	30	21	15	76	**77**	16.7%
Wednesday	3	7	30	20	10	67	**70**	15.1%
Thursday	2	7	29	24	13	73	**74**	16.1%
Friday	3	8	32	22	16	78	**80**	17.4%
Saturday	2	11	20	14	9	54	**56**	12.1%
Total	14	53	179	135	81	448	**462**	100%

Pedestrians are killed and injured in collisions most frequently during the typical work week. In 2009, more pedestrians were involved in traffic collisions on Tuesday (16% of all victims), Thursday (20% of all victims) and Friday (18% of all victims) than any other day of the week. Over the previous five years (2004 to 2008) on average, Tuesday and Friday have accounted for 17%, each, of all pedestrian victims in traffic collisions.

Sunday and Friday (5 of 9 pedestrian deaths) are the most likely days for a pedestrian to be killed in a traffic collision in 2009 while Wednesday and Friday (6 of 14 pedestrian deaths) were the most likely days in the previous five years on average.

Figure 6-3 Proportion of Pedestrians Killed and Injured by Day of Occurrence



NOTE: Due to a small number of pedestrians killed, nine, caution is advised when interpreting those results

Table 6-5 Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type

Table 6-5
Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type: 2009

Time of the Day	2009 Casualty Type												**2009Total Victims**	% of 2009 Total Victims*
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
00:00 - 02:59	4	50.0%	3	10.0%	3	2.4%	2	2.4%	2	2.4%	10	3.1%	**14**	4.3%
03:00 - 05:59	0	-	0	-	4	3.2%	2	2.4%	3	3.6%	9	2.8%	**9**	2.8%
06:00 - 08:59	1	12.5%	3	10.0%	15	12.1%	8	9.8%	13	15.7%	39	12.2%	**40**	12.2%
09:00 - 11:59	1	12.5%	0	-	13	10.5%	16	19.5%	3	3.6%	32	10.0%	**33**	10.1%
12:00 - 14:59	0	-	10	33.3%	32	25.8%	16	19.5%	19	22.9%	77	24.1%	**77**	23.5%
15:00 - 17:59	1	12.5%	6	20.0%	32	25.8%	21	25.6%	23	27.7%	82	25.7%	**83**	25.4%
18:00 - 20:59	1	12.5%	4	13.3%	18	14.5%	10	12.2%	10	12.0%	42	13.2%	**43**	13.1%
21:00 - 23:59	0	-	4	13.3%	7	5.6%	7	8.5%	10	12.0%	28	8.8%	**28**	8.6%
Not Stated	1	-	7	-	13	-	8	-	12	-	40	-	**41**	-
Total	9	100%	37	100%	137	100%	90	100%	95	100%	359	100%	**368**	100%

*Percentage of the total does not include the "not stated" category.

Table 6-5a Pedestrian Victims by Time of Occurrence and Casualty Type for the Previous Five Years

Table 6-5a
Pedestrians Killed and Injured by Time of Occurrence and Casualty: 2004 to 2008 Average

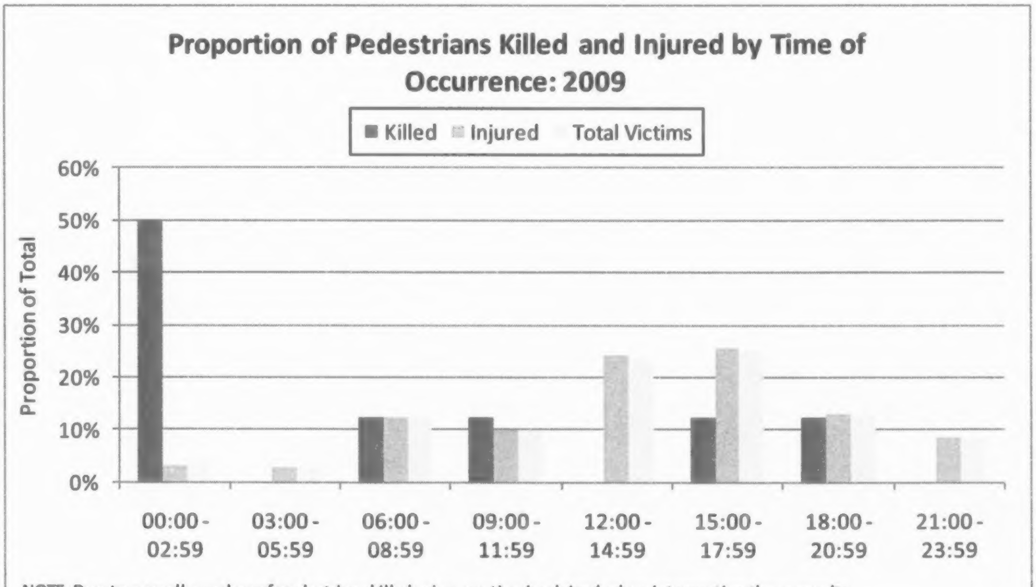
Time of the Day	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims*
00:00 - 02:59	2	4	6	4	2	15	**16**	3.9%
03:00 - 05:59	1	2	4	2	1	9	**10**	2.4%
06:00 - 08:59	1	4	17	12	9	42	**43**	10.2%
09:00 - 11:59	1	5	20	15	9	49	**50**	11.8%
12:00 - 14:59	1	8	31	24	14	77	**78**	18.6%
15:00 - 17:59	2	11	42	34	21	108	**110**	26.3%
18:00 - 20:59	3	9	27	16	13	65	**68**	16.2%
21:00 - 23:59	3	6	17	13	6	42	**45**	10.6%
Not Stated	1	4	16	14	7	41	**42**	-
Total	14	53	179	135	81	448	**462**	100%

*Percentage of the total does not include the "not stated" category.

Pedestrians are most often killed and injured in traffic collisions occurring between noon and 6 p.m. In 2009, almost 24% of all pedestrian victims were involved in traffic collisions between 12:00-14:59 while another 25% were involved in traffic collisions between 15:00 to 17:59. This is consistent with the previous five years (2004 to 2008) on average (12:00-14:59 – 19% of all victims; 15:00 to 17:59 – 26% of all victims).

More pedestrians are killed between in the evening or night time hours. In 2009, 4 of 9 pedestrians were killed between midnight and 3 a.m. In the previous five years (2004 to 2008) on average, 6 of 14 pedestrians were killed between 6 p.m. and midnight and another two between midnight and 3 a.m.

Figure 6-4 Proportion of Pedestrians Killed and Injured by Time of Occurrence



NOTE: Due to a small number of pedestrians killed, nine, caution is advised when interpreting those results

Table 6-6 Total Pedestrians Killed and Injured by Age Group and Casualty Type

Table 6-6

Total Pedestrians Killed and Injured by Age Group and Casualty Type: 2009

Age Group	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims*
	Killed	% of Total Killed*	Serious Injury	% of Total Serious Injury*	Minor Injury	% of Total Minor Injury*	Minimal Injury	% of Total Minimal Injury*	Other Injury	% of Total Other Injury*	Total Injured	% of Total Injured*		
0-4	0	-	1	2.7%	2	1.7%	0	-	1	7.1%	4	2.0%	**4**	1.9%
5-9	0	-	2	5.4%	9	7.6%	0	-	1	7.1%	12	5.9%	**12**	5.7%
10-14	0	-	3	8.1%	12	10.2%	2	6.1%	0	-	17	8.4%	**17**	8.1%
15-19	1	12.5%	8	21.6%	14	11.9%	3	9.1%	6	42.9%	31	15.3%	**32**	15.2%
20-24	0	-	8	21.6%	14	11.9%	1	3.0%	0	-	23	11.4%	**23**	11.0%
25-34	3	37.5%	1	2.7%	16	13.6%	6	18.2%	1	7.1%	24	11.9%	**27**	12.9%
35-44	0	-	3	8.1%	12	10.2%	6	18.2%	3	21.4%	24	11.9%	**24**	11.4%
45-54	1	12.5%	4	10.8%	16	13.6%	5	15.2%	0	-	25	12.4%	**26**	12.4%
55-64	1	12.5%	1	2.7%	11	9.3%	5	15.2%	2	14.3%	19	9.4%	**20**	9.5%
65+	2	25.0%	6	16.2%	12	10.2%	5	15.2%	0	-	23	11.4%	**25**	11.9%
Not Stated	1	-	0	-	19	-	57	-	81	-	157	-	**158**	-
Total	9	100%	37	100%	137	100%	90	100%	95	100%	359	100%	**368**	100%

*Percentage of the total does not include the "not stated" category.

Table 6-6a Pedestrians Killed and Injured by Age and Casualty Type for Previous Five Years

Table 6-6a
Pedestrians Killed and Injured by Age Group and Casualty Type: 2004 to 2008 Average

Age Group	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	% of Total Victims*
0-4	1	1	5	1	0	8	**9**	3.1%
5-9	0	3	15	1	2	21	**21**	7.3%
10-14	0	4	20	4	2	30	**31**	10.5%
15-19	1	6	22	5	1	35	**36**	12.2%
20-24	2	4	15	7	2	27	**29**	10.0%
25-34	2	7	21	8	1	38	**40**	13.7%
35-44	1	8	15	9	2	34	**35**	12.2%
45-54	2	6	20	6	1	33	**35**	11.9%
55-64	0	4	13	3	1	21	**21**	7.3%
65+	3	8	18	3	2	31	**35**	11.9%
Not Stated	2	3	14	86	65	169	**171**	-
Total	14	53	179	135	81	448	**462**	100%

*Percentage of the total does not include the "not stated" category.

Youth aged 15 to 19 account for the highest proportion of pedestrian victims in 2009 (15% of all pedestrians killed or injured), followed by adults aged 25 to 34 (13%), those aged 45 to 54 (12%) and those 65 and older (12%).

- 3 of 9 pedestrians killed in 2009 were between the ages of 25 and 34; 2 were 65 or older.
- There were no pedestrians killed under the age of 15 in 2009.
- 38% of pedestrians seriously injured were under 20 years of age (less than age 10 – 8%; age 10 to 14 – 8%; age 15-19 – 22%), although this age group only accounts for 31% of all pedestrian victims overall.

Compared to the previous five year period (2004 to 2008) on average, there were fewer pedestrian victims of traffic collisions in the younger age groups (under the age of 20) in 2009. Over the previous five years, 21% of pedestrian victims were under the age of 15, including 10% under age 10, 11% aged 10 to 14, and another 12% were aged 15 to 19.

Table 6-7 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group

Table 6-7

Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group: 2009, 2004-2008 Average

Year	2009 Casualty Type						2009 Total Victims	2004-2008 Average Involvement		
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Injured	Total Victims
0-4	0.0	1.3	2.6	0.0	1.3	5.2	**5.2**	0.8	11.6	12.5
5-9	0.0	2.7	12.0	0.0	1.3	16.0	**16.0**	0.5	27.6	28.1
10-14	0.0	3.7	14.7	2.5	0.0	20.9	**20.9**	0.5	35.8	36.3
15-19	1.1	9.1	15.9	3.4	6.8	35.1	**36.3**	0.7	40.9	41.6
20-24	0.0	9.6	16.8	1.2	0.0	27.7	**27.7**	2.2	33.7	36.0
25-34	1.9	0.6	10.2	3.8	0.6	15.2	**17.2**	1.1	25.1	26.2
35-44	0.0	1.9	7.4	3.7	1.9	14.8	**14.8**	0.8	20.1	20.9
45-54	0.5	2.2	8.8	2.7	0.0	13.7	**14.2**	1.0	18.8	19.9
55-64	0.7	0.7	7.8	3.6	1.4	13.6	**14.3**	0.3	16.5	16.8
65+	1.2	3.6	7.2	3.0	0.0	13.7	**14.9**	4.2	38.7	42.9
Total	0.7	3.0	11.3	7.4	7.8	29.6	**30.3**	1.2	37.9	39.1

Younger pedestrians, although they account for a smaller proportion of the overall number of pedestrian victims, tend to have a higher rate of involvement in traffic collisions. Manitobans aged 15 to 19 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions at 36.3 in 2009 (41.6 in the previous 5-year average). This is only slightly ahead of Manitobans aged 20 to 24, whose involvement rate is 27.7 in 2009 (36.0 in the previous 5-year average).

The pedestrian involvement rate for younger Manitobans has dropped dramatically in 2009 compared to the previous five year period (2004 to 2008). The rates of involvement in 2009 for those:

- Aged under 10 is 10.6 – 49% lower than the previous 5-year average;
- Aged 10 to 14 is 20.9 – 42% lower than the previous 5-year average; and,
- Aged 15 to 19 is 36.3 – more than 15% lower than the previous 5-year average.

The pedestrian relative rate of involvement for Manitobans aged 65 and older has also dropped dramatically in 2009 compared to the previous five year period (2004 to 2008) on average. In 2009, the rate of involvement for adults aged 65 and older is 14.9, 68% lower than the average over the previous five years.

Figure 6-5 Proportion of Pedestrians Killed and Injured by Age Group

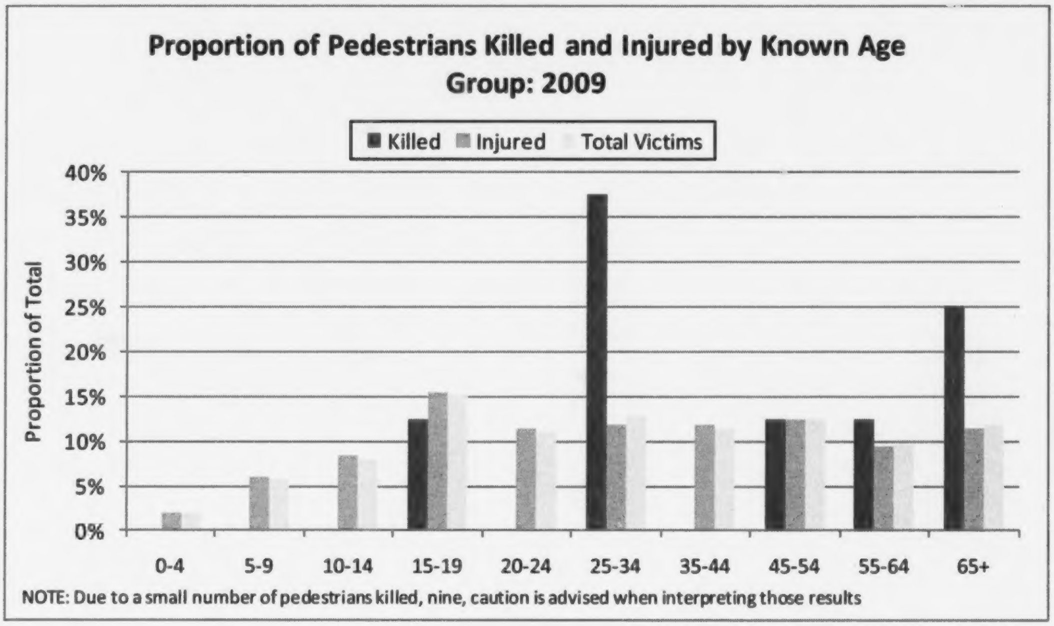


Table 6-8 Pedestrian Action and Casualty Type

Table 6-8
Pedestrian Action and Casualty Type: 2009

Pedestrian Action	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
At intersection, right of way	0	-	4	18.2%	40	44.0%	28	48.3%	14	32.6%	86	40.2%	86	39.4%
At intersection, without right of way	0	-	7	31.8%	12	13.2%	3	5.2%	8	18.6%	30	14.0%	30	13.8%
At intersection, no traffic control	0	-	2	9.1%	2	2.2%	2	3.4%	1	2.3%	7	3.3%	7	3.2%
Between intersections	0	-	3	13.6%	8	8.8%	4	6.9%	7	16.3%	22	10.3%	22	10.1%
Walking along roadway against traffic	1	25.0%	1	4.5%	3	3.3%	0	-	3	7.0%	7	3.3%	8	3.7%
Walking along roadway with traffic	0	-	0	-	4	4.4%	3	5.2%	0	-	7	3.3%	7	3.2%
On sidewalk/median/safety zone	0	-	0	-	1	1.1%	5	8.6%	2	4.7%	8	3.7%	8	3.7%
Walking on roadway (travelled portion)	2	50.0%	0	-	4	4.4%	2	3.4%	1	2.3%	7	3.3%	9	4.1%
From behind vehicle/object on roadside	0	-	1	4.5%	2	2.2%	1	1.7%	0	-	4	1.9%	4	1.8%
Running into roadway	0	-	3	13.6%	15	16.5%	8	13.8%	7	16.3%	33	15.4%	33	15.1%
Getting on/off vehicle	1	25.0%	1	4.5%	0	-	0	-	0	-	1	0.5%	2	0.9%
Pushing/working on vehicle	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Playing on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Working on roadway	0	-	0	-	0	-	2	3.4%	0	-	2	0.9%	2	0.9%
Lying on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Unknown	5	-	15	-	46	-	32	-	52	-	145	-	150	-
Total*	9	100%	37	100%	137	100%	90	100%	95	100%	359	100%	368	100%

*Percentage of the total has been rebased to exclude the "unknown" category.

Table 6-8a Pedestrian Action and Casualty Type for the Previous Five Years

Table 6-8a
Pedestrian Action and Casualty Type: 2004 to 2008 Average

Pedestrian Action	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	**Total Victims**	**% of Total Victims**
At intersection, right of way	1	9	39	27	10	86	**87**	**29.8%**
At intersection, without right of way	1	4	15	8	5	31	**32**	**11.1%**
At intersection, no traffic control	1	1	5	2	2	10	**11**	**3.6%**
Between intersections	2	7	20	14	7	47	**49**	**16.9%**
Walking along roadway against traffic	0	1	1	2	0	4	**4**	**1.2%**
Walking along roadway with traffic	1	2	3	2	1	9	**9**	**3.2%**
On sidewalk/median/safety zone	0	1	6	4	1	12	**12**	**4.1%**
Walking on roadway (travelled portion)	1	3	7	4	2	16	**17**	**5.9%**
From behind vehicle/object on roadside	0	1	6	4	1	13	**13**	**4.4%**
Running into roadway	1	5	20	10	7	42	**43**	**14.7%**
Getting on/off vehicle	0	0	1	1	0	3	**3**	**1.2%**
Pushing/working on vehicle	0	1	0	0	0	1	**2**	**0.6%**
Playing on roadway	0	0	2	1	0	3	**3**	**1.0%**
Working on roadway	0	0	2	1	0	3	**3**	**1.0%**
Lying on roadway	2	1	0	0	0	1	**3**	**1.1%**
Other	0	0	0	0	0	0	**0**	**0.1%**
Unknown	3	18	52	55	43	168	**171**	-
Total	14	53	179	135	81	448	**462**	**100%**

*Percentage of the total has been rebased to exclude the "unknown" category.

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrians injured in a traffic collision in 2009 were:

- At an intersection, crossing with the right of way (40% of pedestrians injured; none among those killed) or without the right of way (14% of pedestrians injured; none among of those killed);
- Running into the roadway (15% of pedestrians injured; none among those killed); or,
- Between intersections, crossing the roadway (10% of pedestrians injured; none among those killed).

For most pedestrians killed in traffic collisions in 2009 (5 of 9 killed), it is not known what the pedestrian was doing immediately prior to the collision. Three of the others killed were walking along the roadway, either against traffic (one) or on the travelled portion of the roadway (two).

Pedestrian actions immediately prior to the traffic collision in 2009 are not dramatically different than the actions recorded in the previous five year period (2004 to 2008) on average.

SECTION 7 – Vehicle Involvement

Introduction

This section calculates the number of vehicles involved in traffic collisions. Vehicle involvement in a collision is counted for each vehicle type (such as automobiles, vans, pick-up trucks, types of emergency vehicles). Vehicles involved in collisions that were, or were not, transporting hazardous loads and the nature of these loads is also indicated.

Key Highlights
In 2009, there were 43,610 vehicles involved in traffic collisions. Of these:

- 126 were involved in fatal collisions;
- 9,268 were involved in injury collisions; and,
- 34,216 were involved in PDO collisions.

Relative involvement of vehicles in traffic collisions per 10,000 registered vehicles has decreased in 2009 compared to 2008 and to the previous five year period (2004 to 2008) on average. Relative involvement of vehicles in traffic collisions in 2009 for:

- Total collisions is 556.7; down 3% from 2008 and 19% from the previous five years;
- Fatal collisions is 1.6; down nearly 12% from 2008 and 14% from the previous five years;
- Injury collisions is 118.3; down 10% from 2008 and nearly 22% from the previous five years; and,
- PDO collisions is 436.7; down 1% from 2008 and nearly 19% from the previous five years.

Light duty vehicles, including passenger vehicles, minivans and light trucks, represent 91% of the vehicles involved in all traffic collisions in 2009, unchanged from the previous five years (2004 to 2008) on average (91%). Commercial vehicles represent 8% of the vehicles involved, public service (PSV) vehicles represent about 0.2% and motorcycles, scooters and mopeds represent 0.4%.

Major Elements Examined
Counts of vehicles involved in collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of vehicles involved in those collisions. All collisions reported involve at least one vehicle, but may involve more than one as well.

When comparing historical results of relative involvement rates per 10,000 registered vehicles, the reader is cautioned to note that data from 1999 to 2001 used a different methodology when counting the population of registered vehicles than has been recently implemented for this report. It should be noted that calculations in these years is not directly comparable to the calculations for 2002 to 2009.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Vehicles"

- The number of vehicles involved in collisions. It excludes pedestrians, but includes automobiles, trucks, vans, buses, mobility vehicles, motorcycles, scooters, mopeds, bicycles, off-road vehicles, farm and construction equipment, and trains.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Vehicle Involvement Rate"

- A calculation of the number of vehicles involved in traffic collisions for every 10,000 vehicles registered in Manitoba. The total number of vehicles registered is based on a point-in-time observation of the number of vehicles registered in specific vehicle classes. More detail regarding the methodology used to count registered vehicles can be found in "*Section 3 Vehicle Registrations*" of this report.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg and pick-up under 4500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) classification of vehicles is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"PSV Vehicles"

- Also known as 'public service vehicles', a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Other school vehicle", and "Emergency vehicles", including ambulance, fire and police vehicles.

Table 7-1 Ten Year Summary of Vehicles Involved in Traffic Collisions

Table 7-1

Historical Summary of Vehicles Involved in Traffic Collisions: 1999 to 2009

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
1999	157	-	12,543	-	35,757	-	48,457	-
2000	140	-10.8%	12,362	-1.4%	40,308	12.7%	52,810	9.0%
2001	138	-1.4%	11,770	-4.8%	39,215	-2.7%	51,123	-3.2%
2002	156	13.0%	12,384	5.2%	40,289	2.7%	52,829	3.3%
2003	142	-9.0%	12,750	3.0%	44,388	10.2%	57,280	8.4%
2004	131	-7.7%	12,090	-5.2%	44,998	1.4%	57,219	-0.1%
2005	135	3.1%	11,489	-5.0%	42,719	-5.1%	54,343	-5.0%
2006	151	11.9%	11,312	-1.5%	40,157	-6.0%	51,620	-5.0%
2007	141	-6.6%	11,099	-1.9%	37,251	-7.2%	48,491	-6.1%
2008	141	0.0%	10,219	-7.9%	34,195	-8.2%	44,555	-8.1%
2009	**126**	**-10.6%**	**9,268**	**-9.3%**	**34,216**	**0.1%**	**43,610**	**-2.1%**
2004-2008 Average*	140	0.1%	11,242	-4.3%	39,864	-5.0%	51,246	-4.9%

* The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

In 2009, there were 43,610 vehicles involved in traffic collisions. Of these:

- 126 were involved in fatal collisions;
- 9,268 were involved in injury collisions; and,
- 34,216 were involved in PDO collisions.

Overall, there were 2% fewer vehicles involved in traffic collisions in 2009 compared to 2008 and 15% fewer than in the previous five year period (2004 to 2008) on average. These decreases in total vehicles involved are driven by fewer vehicles being involved in fatal and injury collisions. In 2009, there were:

- 15 fewer vehicles involved in fatal collisions than in 2008 (nearly 11% decreased), 14 fewer vehicles (10% decreased) than in the previous five years on average;
- 9% fewer vehicles involved in injury collisions compared to 2008, nearly 18% fewer than in the previous five years on average; and,
- A nearly equal number of vehicles involved in PDO collisions compared to 2008, 14% fewer than in the previous five years on average.

Table 7-2 Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions

Table 7-2
Historical Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions: 2002 to 2009

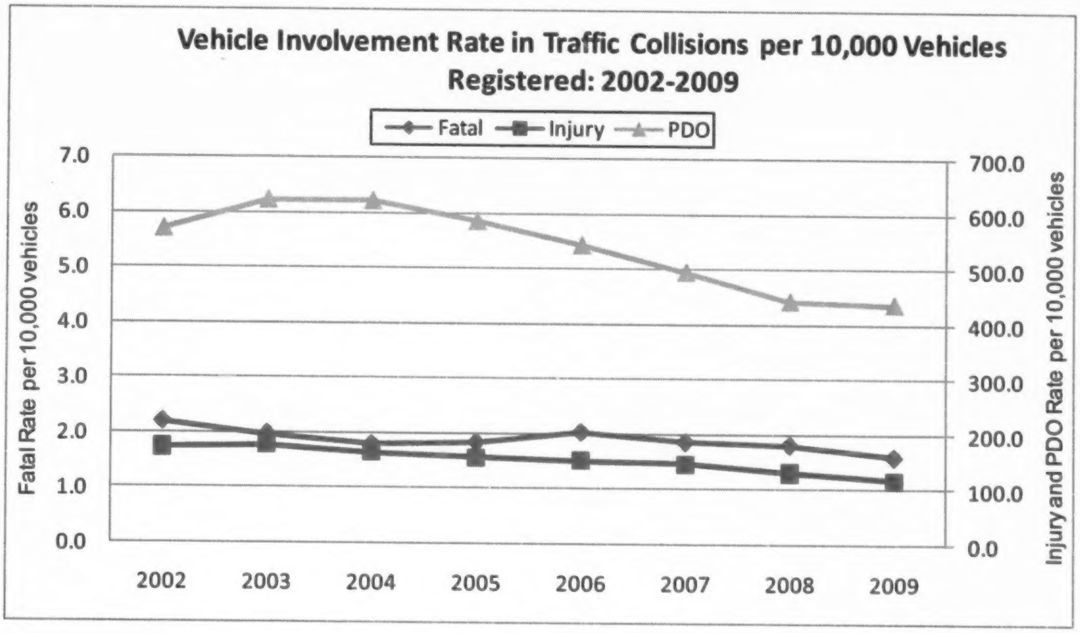
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2002	2.2	-	175.0	-	569.2	-	746.4	-
2003	2.0	-9.8%	178.5	2.0%	621.5	9.2%	802.0	7.5%
2004	1.8	-9.2%	166.6	-6.7%	620.2	-0.2%	788.6	-1.7%
2005	1.8	2.3%	157.2	-5.7%	584.5	-5.7%	743.6	-5.7%
2006	2.0	10.4%	152.7	-2.8%	542.2	-7.2%	697.0	-6.3%
2007	1.9	-8.2%	147.3	-3.6%	494.2	-8.8%	643.4	-7.7%
2008	1.8	-2.6%	132.1	-10.3%	442.0	-10.6%	575.9	-10.5%
2009	**1.6**	**-11.8%**	**118.3**	**-10.4%**	**436.7**	**-1.2%**	**556.7**	**-3.3%**
2004-2008 Average*	1.9	-1.5%	151.2	-5.8%	536.6	-6.5%	689.7	-6.4%

* The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

Relative involvement of vehicles in traffic collisions per 10,000 registered vehicles has decreased in 2009 compared to 2008 and to the previous five year period (2004 to 2008) on average. Relative involvement of vehicles in traffic collisions in 2009 for:

- Total collisions is 556.7; down 3% from 2008 and 19% from the previous five year average;
- Fatal collisions is 1.6; down nearly 12% from 2008 and 14% from the previous five year average;
- Injury collisions is 118.3; down 10% from 2008 and nearly 22% from the previous five year average; and,
- PDO collisions is 436.7; down 1% from 2008 and nearly 19% from the previous five year average.

Figure 7-1 Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Fatal, Injury and PDO Collisions



As shown in Figure 7-1, the downward trend in relative rate of involvement for vehicles in PDO collisions has continued since 2004. This is also somewhat the case for the relative rate of involvement of vehicles in injury collisions, which has been steadily declining since 2003. However, the relative rate of involvement for vehicles in fatal collisions, although down in 2009 from the previous three years, had increased slightly in 2006 compared to the two previous years.

Table 7-3 Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity

Table 7-3

Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity: 2009, 2004-2008 Average

Vehicle Type	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Passenger vehicle (automobile)	50	39.7%	5,801	62.6%	21,136	61.8%	**26,987**	61.9%	60	7,076	24,878	32,014	62.5%
Mini/Multi-Purpose Van	12	9.5%	1,012	10.9%	4,021	11.8%	**5,045**	11.6%	13	1,264	4,578	5,855	11.4%
Van under 4500 kg	1	0.8%	109	1.2%	456	1.3%	**566**	1.3%	2	148	551	701	1.4%
Pick-up under 4500 kg	31	24.6%	1,169	12.6%	5,340	15.6%	**6,540**	15.0%	31	1,349	6,209	7,590	14.8%
Truck over 4500 kg (unit chassis)	2	1.6%	100	1.1%	389	1.1%	**491**	1.1%	3	132	485	620	1.2%
Power Unit for Semi-Trailer	10	7.9%	99	1.1%	348	1.0%	**457**	1.0%	13	130	442	585	1.1%
Truck/Camper	0	-	5	<0.1%	26	<0.1%	**31**	<0.1%	0	7	32	40	<0.1%
Motor home	0	-	3	<0.1%	12	<0.1%	**15**	<0.1%	0	2	16	18	<0.1%
Truck (other)	10	7.9%	536	5.8%	2,127	6.2%	**2,673**	6.1%	5	607	2,203	2,816	5.5%
School Bus	1	0.8%	16	0.2%	47	0.1%	**64**	0.1%	0	10	59	70	0.1%
Other School Vehicle	0	-	0	-	1	<0.1%	**1**	<0.1%	0	0	1	1	<0.1%
Transit Bus – urban	0	-	23	0.2%	52	0.2%	**75**	0.2%	0	24	47	71	0.1%
Para-transit Bus	0	-	1	<0.1%	3	<0.1%	**4**	<0.1%	0	1	4	5	<0.1%
Intercity Bus	0	-	6	<0.1%	18	<0.1%	**24**	<0.1%	0	13	60	73	0.1%
Bus (other)	0	-	0	-	12	<0.1%	**12**	<0.1%	0	5	17	22	<0.1%
Motorcycle/Scooter	4	3.2%	113	1.2%	47	0.1%	**164**	0.4%	3	119	49	171	0.3%
Moped	0	-	3	<0.1%	0	-	**3**	<0.1%	0	4	1	6	<0.1%
Bicycle	1	0.8%	222	2.4%	16	<0.1%	**239**	0.5%	3	276	21	300	0.6%
Ambulance	0	-	3	<0.1%	21	<0.1%	**24**	<0.1%	0	8	19	28	<0.1%
Fire	0	-	4	<0.1%	6	<0.1%	**10**	<0.1%	0	4	16	20	<0.1%
Police	0	-	17	0.2%	48	0.1%	**65**	0.1%	0	23	69	93	0.2%
Mobility Vehicle	0	-	1	<0.1%	1	<0.1%	**2**	<0.1%	0	0	1	1	<0.1%
Motorised Snow Vehicle HTA	0	-	0	-	1	<0.1%	**1**	<0.1%	0	1	1	2	<0.1%
Farm Equipment	3	2.4%	6	<0.1%	24	<0.1%	**33**	<0.1%	0	8	17	26	<0.1%
Construction Equipment	0	-	13	0.1%	57	0.2%	**70**	0.2%	0	11	74	86	0.2%
Train/Other Rail Vehicle	0	-	0	-	0	-	**0**	-	0	0	1	1	<0.1%
Off-Road Vehicles	1	0.8%	6	<0.1%	7	<0.1%	**14**	<0.1%	4	16	13	33	<0.1%
Total	126	100%	9,268	100%	34,216	100%	**43,610**	100%	140	11,242	39,864	51,246	100%

Table 7-4 Vehicles Involved in Traffic Collisions for Combined Vehicle Categories

Table 7-4

Vehicle Types (Combined Categories) Involved in Traffic Collisions and Collision Severity: 2009, 2004-2008 Average

Vehicle Type	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Light Duty Vehicles	94	77.0%	8,091	90.2%	30,953	91.2%	**39,138**	90.9%	106	9,838	36,216	46,160	90.9%
Passenger vehicles	63	51.6%	6,922	77.2%	25,613	75.4%	**32,598**	75.7%	75	8,488	30,007	38,570	76.0%
Light trucks	31	25.4%	1,169	13.0%	5,340	15.7%	**6,540**	15.2%	31	1,349	6,209	7,590	14.9%
NSC Commercial Vehicles	23	18.9%	735	8.2%	2,864	8.4%	**3,622**	8.4%	22	923	3,317	4,262	8.4%
PSV Vehicles	0	-	24	0.3%	76	0.2%	**100**	0.2%	1	36	105	141	0.3%
Motorcycle/Moped/Scooter	4	3.3%	116	1.3%	47	0.1%	**167**	0.4%	3	123	50	177	0.3%
Off-Road vehicles	1	0.8%	6	<0.1%	7	<0.1%	**14**	<0.1%	4	16	13	33	<0.1%

Table 7-5 Vehicle Relative Involvement (per 10,000 Registered Vehicles) in Traffic Collision by Combined Vehicle Categories and Collision Severity

Table 7-5

Vehicle Relative Involvement (per 10,000 Registered Vehicles) in Traffic Collisions by Vehicle Type and Collision Severity: 2009, 2004-2008 Average

Vehicle Type	2009 Collision Severity				2004-2008 Average			
	Fatal	Injury	PDO	**2009 Total**	Fatal	Injury	PDO	Total
Light Duty Vehicles	1.5	125.8	481.1	**608.4**	1.7	160.6	591.3	753.6
Passenger vehicles	1.2	134.1	496.2	**631.5**	1.5	171.8	607.2	780.5
Light trucks	2.4	91.9	420.0	**514.3**	2.6	114.0	524.6	641.2
NSC Commercial Vehicles	3.3	106.8	416.0	**526.1**	3.6	150.0	539.0	692.6
PSV Vehicles	0.0	24.4	77.4	**101.8**	1.1	38.2	111.7	151.1
Motorcycle/Moped/Scooter	3.8	111.4	45.1	**160.4**	3.5	144.9	59.3	207.8

Light duty vehicles, including passenger vehicles, minivans and light trucks, represent 91% of the vehicles involved in all traffic collisions in 2009, unchanged from the previous five years (2004 to 2008) on average (91%). NSC Commercial vehicles represent 8% of the vehicles involved, public service (PSV) vehicles represent about 0.2% and motorcycles, scooters and mopeds represent 0.4%.

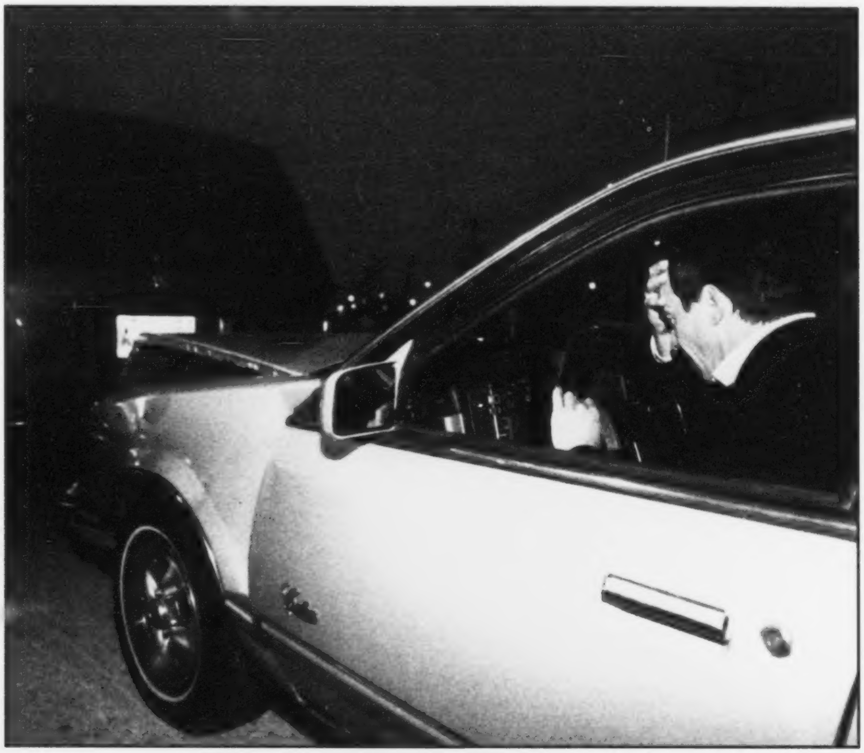
Light duty vehicles have the highest relative rate of involvement per 10,000 registered vehicles among all the vehicle types examined. Light duty vehicles (passenger vehicles and light trucks, combined) have a relative rate of involvement of 608.4 in 2009 and 753.6 in the previous five years (2004 to 2008) on average. NSC commercial vehicles have the second highest relative involvement rate, at 526.1 in 2009 and 692.6 over the previous five year period on average.

PSV vehicles and motorcycles, including scooters and mopeds, have the lowest relative rate of involvement in traffic collisions among all vehicle types examined, both in 2009 and in the previous five years (2004 to 2008) on average. The relative involvement rates of vehicles in both of these categories have seen decreases in 2009 compared to the previous five year period on average.

Motorcycles, scooters and mopeds are much more likely than any other vehicle type to be involved in a fatal collision. In 2009, motorcycles, scooters and mopeds had a relative involvement rate per 10,000 vehicles registered of 3.8 in fatal collisions, two and a half times the involvement rate of light duty vehicles in fatal collisions. In the previous five year period (2004 to 2008) on average, motorcycles, scooters and mopeds had a vehicle involvement rate of 3.5 in fatal collisions, twice the rate of light duty vehicles.

NOTE: No relative involvement rate for off-road vehicles (ORV) is calculated due to difficulty in developing a reliable and accurate population count of these vehicles.

SECTION 8 – Driver Involvement



Introduction

This section calculates the number of drivers involved in traffic collisions and breaks this down by age and gender of the driver. Relative involvement in traffic collisions is also detailed.

Key Highlights
In 2009, there were 41,097 drivers involved in traffic collisions. Of these:

- 120 were involved in fatal collisions;
- 8,938 were involved in injury collisions; and,
- 32,039 were involved in PDO collisions.

Drivers aged 16 to 24 years old account for the greatest proportion of drivers involved in traffic collisions in 2009, followed by drivers aged 45 to 54 and those aged 35 to 44.

- Total collisions: aged 16 to 24 – 23%; aged 25 to 34 – 17%; aged 35 to 44 – 18%; aged 45 to 54 – 19%; aged 55 to 64 – 13%; aged 65 and older – 10%.
- Fatal collisions: aged 16 to 24 – 23%; aged 25 to 34 – 18%; aged 35 to 44 – 15%; aged 45 to 54 – 19%; aged 55 to 64 – 7%; aged 65 and older – 16%.
- Injury collisions: aged 16 to 24 – 23%; aged 25 to 34 – 18%; aged 35 to 44 – 19%; aged 45 to 54 – 19%; aged 55 to 64 – 12%; aged 65 and older – 8%.
- PDO collisions: aged 16 to 24 – 23%; aged 25 to 34 – 17%; aged 35 to 44 – 18%; aged 45 to 54 – 19%; aged 55 to 64 – 13%; aged 65 and older – 10%.

Young drivers have a much higher relative rate of involvement in traffic collisions than older drivers. Drivers aged 16 to 24 years old have a relative involvement rate (per 10,000 licensed drivers) of 694.6 in traffic collisions in 2009. This is:

- 1.5 times that of drivers aged 25 to 34 (rate of 460.6);
- 1.6 times that of drivers aged 35 to 44 (rate of 444.0);
- 1.8 times that of drivers aged 45 to 54 (rate of 393.0);
- Twice that of drivers aged 55 to 64 (rate of 340.4); and,
- 2.6 times that of drivers aged 65 and older (rate of 266.6).

The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2009 where the driver gender is known, 61% are male and 39% female.

- Fatal collisions: 82% involved male drivers, 18% female drivers.
- Injury collisions: 57% involved male drivers, 43% female drivers.
- PDO collisions: 63% involved male drivers, 37% female drivers.

Male drivers are much more likely to be involved in a traffic collision than female drivers. The relative rate of involvement for men in traffic collisions in 2009 was 528.0, nearly one and a half times that of females (359.5). Relative involvement rates (per 10,000 licensed drivers) for collisions of differing severity:

- Fatal collisions: male rate – 2.4, female rate – 0.6.
- Injury collisions: male rate – 109.4, female rate – 90.6.
- PDO collisions: male rate – 416.3, female rate – 268.3.

The reader should note that neither the count of drivers involved in collisions nor the calculated relative rate of involvement rate takes into account exposure to risk in terms of driving hours, driving kilometres or driving situations.

Major Elements Examined
Counts of drivers involved in collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of drivers involved in those collisions; nor is the number of vehicles involved in collisions. Because some collisions involve more than one driver while others involve a single driver, the number of drivers will not equal the number of collisions. Likewise, not every vehicle involved in a collision will have a driver. Some collisions involve parked vehicles while other may involve driverless vehicles, such as construction or farm equipment. (A full definition of what constitutes a "driver" for this report is provided under the "*Terms and Definitions*" heading.) Because there are more drivers involved in collisions than collisions overall, relative involvement rates calculated based on the number of drivers will be higher than the relative involvement rates calculated based on the number of collisions.

When comparing historical results of relative involvement rates per 10,000 licensed drivers, the reader is cautioned to note that data from 1999 to 2002 used a different methodology when counting the population of licensed drivers than has been recently implemented for this report. While presented here, it should be noted that calculations in these years are not directly comparable to the calculations for 2003 to 2009.

When exploring the number of drivers in different age groups involved in traffic collisions, the reader is cautioned that the driver's age is missing in some collisions. In 2009, one in five drivers (19%) is not identified by age. In the five year period (2004 to 2008) on average, 21% of the drivers are not identified by age. Likewise, gender is not always captured for each driver involved in a traffic collision. In 2009, nearly 16% of the drivers involved in traffic collisions are not identified by gender. In the five year period (2004 to 2008) on average, almost 18% of drivers were not identified by gender.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Drivers"

- The number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed to drive in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This relative involvement rate does not take into account the number of vehicle kilometres driven by each driver group. More detail regarding the methodology used to count licensed drivers can be found in "*Section 2 Licensed Drivers*" of this report.

Table 8-1 Ten Year Summary of Drivers Involved in Traffic Collisions

Table 8-1

Historical Summary of Drivers Involved in Traffic Collisions: 1999 to 2009

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
1999	151	-	12,096	-	32,615	-	44,862	-
2000	136	-9.9%	11,943	-1.3%	36,780	12.8%	48,859	8.9%
2001	127	-6.6%	11,377	-4.7%	34,820	-5.3%	46,324	-5.2%
2002	149	17.3%	11,957	5.1%	35,976	3.3%	48,082	3.8%
2003	138	-7.4%	12,248	2.4%	40,017	11.2%	52,403	9.0%
2004	127	-8.0%	11,647	-4.9%	40,239	0.6%	52,013	-0.7%
2005	126	-0.8%	11,044	-5.2%	37,728	-6.2%	48,898	-6.0%
2006	145	15.1%	10,827	-2.0%	35,408	-6.1%	46,380	-5.1%
2007	135	-6.9%	10,696	-1.2%	33,983	-4.0%	44,814	-3.4%
2008	121	-10.4%	9,854	-7.9%	32,145	-5.4%	42,120	-6.0%
2009	**120**	**-0.8%**	**8,938**	**-9.3%**	**32,039**	**-0.3%**	**41,097**	**-2.4%**
2004-2008 Average*	131	-2.2%	10,814	-4.2%	35,901	-4.3%	46,845	-4.3%

* The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

In 2009, there were 41,097 drivers involved in traffic collisions. Of these:

- 120 were involved in fatal collisions;
- 8,938 were involved in injury collisions; and,
- 32,039 were involved in PDO collisions.

Overall, there were 2% fewer drivers involved in traffic collisions in 2009 compared to 2008 and 12% fewer than in the previous five years (2004 to 2008) on average. In 2009 there were:

- A nearly equal number of drivers involved in fatal collisions compared to 2008, but 8% fewer than in the previous five years on average;
- 9% fewer drivers involved in injury collisions compared to 2008 and 17% fewer than the previous five years on average; and
- A nearly equal number of drivers involved in PDO collisions compared to 2008, but 11% fewer than in the previous five years on average.

The percentage decrease in the number of drivers involved in traffic collisions from 2008 to 2009 (2%) is half the average rate of decrease in the previous five year period on average (4%).

Table 8-2 Historical Summary of Driver Involvement (Relative Rate per 10,000 Licensed Drivers) in Traffic Collisions

Table 8-2

Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions: 2001 to 2009

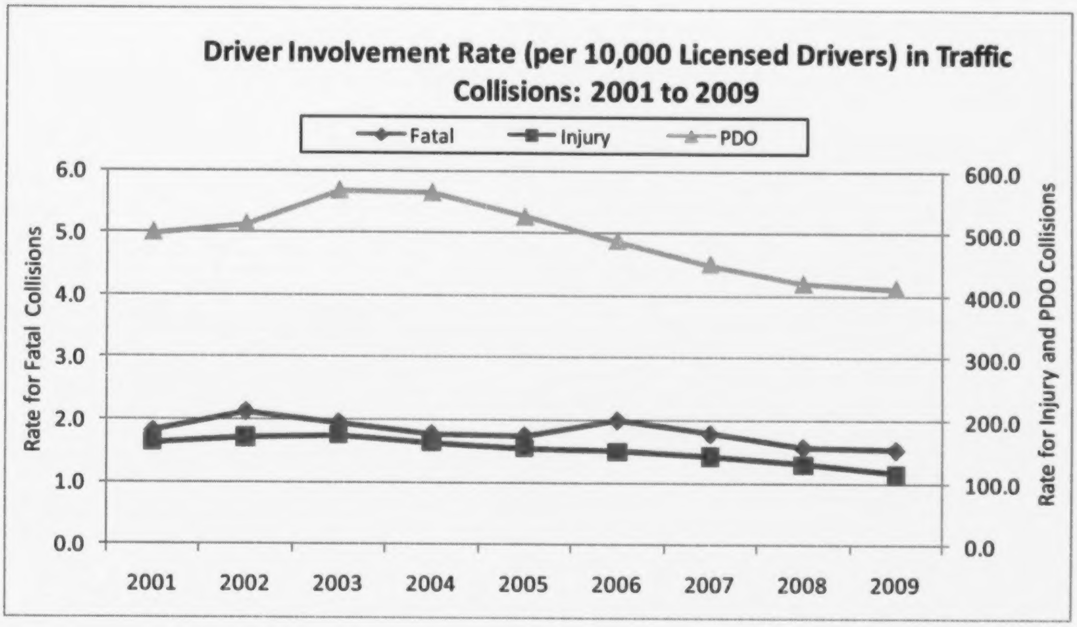
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2001	1.8	-	163.5	-	500.5	-	665.8	-
2002	2.1	16.6%	170.8	4.4%	513.8	2.7%	686.7	3.1%
2003	2.0	-7.9%	174.0	1.9%	568.5	10.6%	744.5	8.4%
2004	1.8	-9.0%	163.7	-5.9%	565.6	-0.5%	731.0	-1.8%
2005	1.8	-1.4%	154.2	-5.8%	526.8	-6.9%	682.8	-6.6%
2006	2.0	13.8%	149.5	-3.1%	488.8	-7.2%	640.3	-6.2%
2007	1.8	-10.4%	142.2	-4.9%	451.7	-7.6%	595.6	-7.0%
2008	1.6	-11.8%	128.8	-9.4%	420.2	-7.0%	550.6	-7.6%
2009	**1.5**	**-2.3%**	**115.1**	**-10.6%**	**412.8**	**-1.8%**	**529.5**	**-3.8%**
2004-2008 Average*	1.8	-3.8%	147.7	-5.8%	490.6	-5.8%	640.1	-5.8%

* The "% change to previous year" for "2004-2008 Average" is an average rate of change for the time period 2004 to 2008.

The relative rate of involvement for drivers in traffic collisions in 2009 is 529.5 per 10,000 licensed drivers. This represents a 4% decrease from 2008 and a 17% decrease from the previous five years (2004 to 2008) on average. Driver involvement is also down for of each collision severity. In 2009, the driver relative rate of involvement in:

- Fatal collisions (1.5) is down 2% compared to 2008 and 13% compared to the previous five year period;
- Injury collisions (115.1) is down nearly 11% compared to 2008 and 22% compared to the previous five year period; and,
- PDO collisions (412.8) is down 2% compared to 2008 and 16% compared to the previous five year period.

Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions of Different Severity



The downward trend in relative rate of involvement for drivers in PDO collisions has been fairly consistent since 2004. This is also the case for the relative rate of involvement for drivers in injury collisions, which has been steadily declining since 2003. However, the relative rate of involvement for drivers in fatal collisions, although down in 2009 from the previous three years, has only been decreasing since 2006. Prior to then, the relative rate of involvement for drivers in fatal collisions had steadily declined between 2002 and 2005 and experienced a substantial increase in 2006.

Table 8-3 Drivers Involved in Traffic Collisions by Age Group and Collision Severity

Table 8-3

Total Drivers Involved in Traffic Collisions by Age Group and Collision Severity: 2009, 2004-2008 Average

Age Group	2009 Collision Severity						**2009 Total Collisions**	% of 2009 Total Collisions	2004-2008 Average Count of Drivers				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total Collisions
<16	2	1.7%	11	0.1%	35	0.1%	**48**	0.1%	1	24	54	79	0.2%
16-19	11	9.4%	769	10.2%	2,758	10.8%	**3,538**	10.6%	12	953	3,219	4,184	11.3%
20-24	16	13.7%	970	12.8%	3,088	12.1%	**4,074**	12.3%	22	1,120	3,370	4,513	12.2%
25-34	21	17.9%	1,367	18.1%	4,396	17.2%	**5,784**	17.4%	23	1,693	4,789	6,505	17.5%
35-44	18	15.4%	1,460	19.3%	4,570	17.9%	**6,048**	18.2%	25	1,856	5,267	7,149	19.3%
45-54	22	18.8%	1,460	19.3%	4,826	18.9%	**6,308**	19.0%	18	1,612	5,158	6,789	18.3%
55-64	8	6.8%	891	11.8%	3,285	12.9%	**4,184**	12.6%	14	975	3,331	4,319	11.6%
65+	19	16.2%	625	8.3%	2,593	10.1%	**3,237**	9.7%	15	705	2,818	3,537	9.5%
Not Stated	3	-	1,385	-	6,488	-	**7,876**	-	1	1,875	7,894	9,770	-
Total*	**120**	**100%**	**8,938**	**100%**	**32,039**	**100%**	**41,097**	100%	131	10,814	35,901	46,845	100%

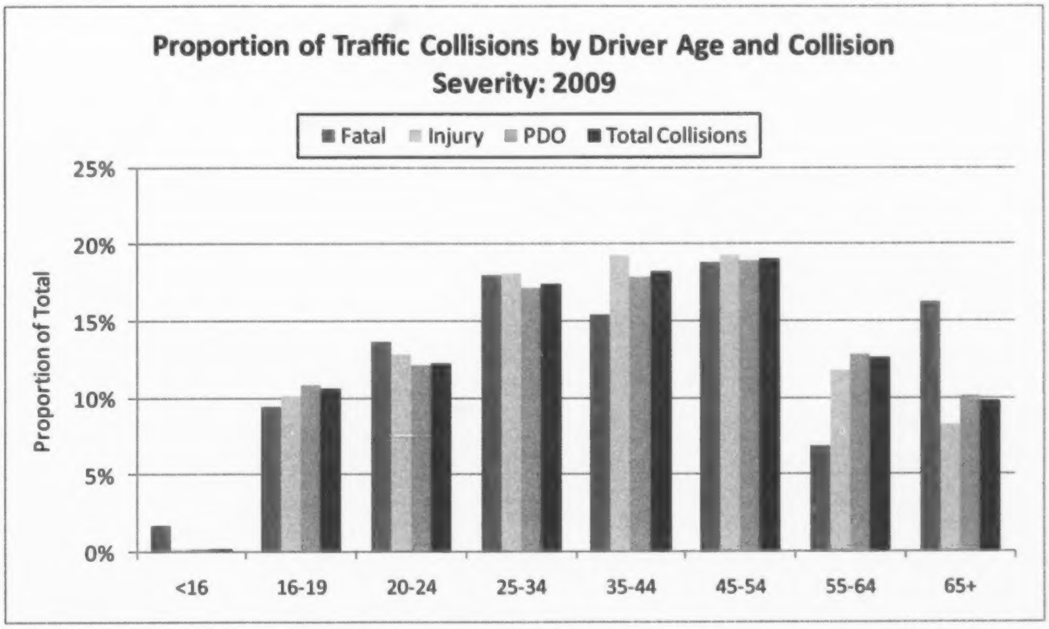
*Percentage of the total does not include the "not stated" category.

Drivers aged 16 to 24 years old account for the greatest proportion of traffic collisions in 2009 (23% overall). This is true for collisions of each severity as well (fatal collisions – 23%; injury collisions – 23%; PDO collisions – 23%). Drivers aged 45 to 54 and those aged 35 to 44 account for the next highest proportions of collisions in 2009 (19% and 18%, respectively).

When compared to the previous five year period (2004 to 2008) on average, the proportion of collisions involving drivers:

- Aged 16 to 24 has fallen by 12% overall – these drivers were involved in 21% fewer fatal collisions, 16% fewer injury collisions and 11% fewer PDO collisions;
- Aged 25 to 34 has fallen by 11% overall – these drivers were involved in 7% fewer fatal collisions, 19% fewer injury collisions and 8% fewer PDO collisions;
- Aged 35 to 44 has fallen by 15% overall – these drivers were involved in 29% fewer fatal collisions, 21% fewer injury collisions and 13% fewer PDO collisions;
- Aged 45 to 54 has fallen by 7% overall – these drivers were involved in 22% more fatal collisions, but 9% fewer injury collisions and 6% fewer PDO collisions;
- Aged 55 to 64 has fallen by 3% overall – these drivers were involved in 42% fewer fatal collisions, 9% fewer injury collisions and 1% fewer PDO collisions; and,
- Aged 65 and older has fallen by 8% overall – these drivers were involved in 27% more fatal collisions, but 11% fewer injury collisions and 8% fewer PDO collisions.

Figure 8-2 Proportion of Traffic Collisions by Driver Age and Collision Severity



Drivers aged 20 to 24 and aged 65 and older account for a higher proportion of fatal traffic collisions than they do injury and PDO collisions. The opposite is true for drivers aged 16 to 19, those aged 35 to 44 and those aged 55 to 64.

Drivers aged 25 to 34 account for a fairly equal proportion of collisions of each severity, as do drivers aged 45 to 54.

Table 8-4 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity

Table 8-4
Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity: 2009, 2004-2008 Average

Age Group	2009 Collision Severity			**2009 Total Collisions**	2004-2008 Average Count of Drivers			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
<16	-	-	-	**-**	-	-	-	-
16-19	2.4	164.3	589.4	**756.1**	2.7	208.9	705.9	917.5
20-24	2.5	154.5	491.8	**648.8**	3.7	187.2	563.1	753.9
25-34	1.7	108.9	350.1	**460.6**	1.9	142.4	402.8	547.1
35-44	1.3	107.2	335.5	**444.0**	1.8	132.2	375.3	509.3
45-54	1.4	91.0	300.6	**393.0**	1.2	107.0	342.2	450.4
55-64	0.7	72.5	267.3	**340.4**	1.3	90.0	307.5	398.8
65+	1.6	51.5	213.6	**266.6**	1.4	63.5	253.9	318.7

Recognizing that counts of drivers involved in collisions could be impacted either positively or negatively by changing population statistics, relative involvement rates per 10,000 licensed drivers is examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on the rate at which drivers are involved in collisions instead of simply a raw count of the number of drivers involved overall.

Except for fatal collisions, drivers aged 16 to 19 have the highest rates of involvement in collisions. Drivers aged 20 to 24 have the highest involvement rates in fatal collisions, but follow the 16 to 19 year olds in total collisions, injury collisions and PDO collisions. Combined, drivers aged 16 to 24 have a relative involvement rate (per 10,000 licensed drivers) of 694.6 in traffic collisions in 2009. This is:

- 1.5 times that of drivers aged 25 to 34 (rate of 460.6);
- 1.6 times that of drivers aged 35 to 44 (rate of 444.0);
- 1.8 times that of drivers aged 45 to 54 (rate of 393.0);
- Twice that of drivers aged 55 to 64 (rate of 340.4); and,
- 2.6 times that of drivers aged 65 and older (rate of 266.6).

Compared to the previous five year period (2004 to 2008) on average, driver involvement rates in total collisions are down for all age groups. This is also the case for driver involvement rates for collisions of different severity, with the exception of driver involvement in fatal collisions for drivers aged 45 to 54 and drivers aged 65 and older. Compared to the previous five year period, driver involvement rates for:

- Drivers aged 16 to 24 are down 16% for total collisions, down 24% for fatal collisions, down 19% for injury collisions and down 15% for PDO collisions;
- Drivers aged 25 to 34 are down 16% for total collisions, down 12% for fatal collisions, down 24% for injury collisions and down 13% for PDO collisions;
- Drivers aged 35 to 44 are down 13% for total collisions, down 26% for fatal collisions, down 19% for injury collisions and down 11% for PDO collisions;
- Drivers aged 45 to 54 are down 13% for total collisions, up 15% for fatal collisions, down 15% for injury collisions and down 12% for PDO collisions;
- Drivers aged 55 to 64 are down 15% for total collisions, down 49% for fatal collisions, down 19% for injury collisions and down 13% for PDO collisions; and,
- Drivers aged 65 and older are down 16% for total collisions, up 16% for fatal collisions, down 19% for injury collisions and down 16% for PDO collisions.

Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity

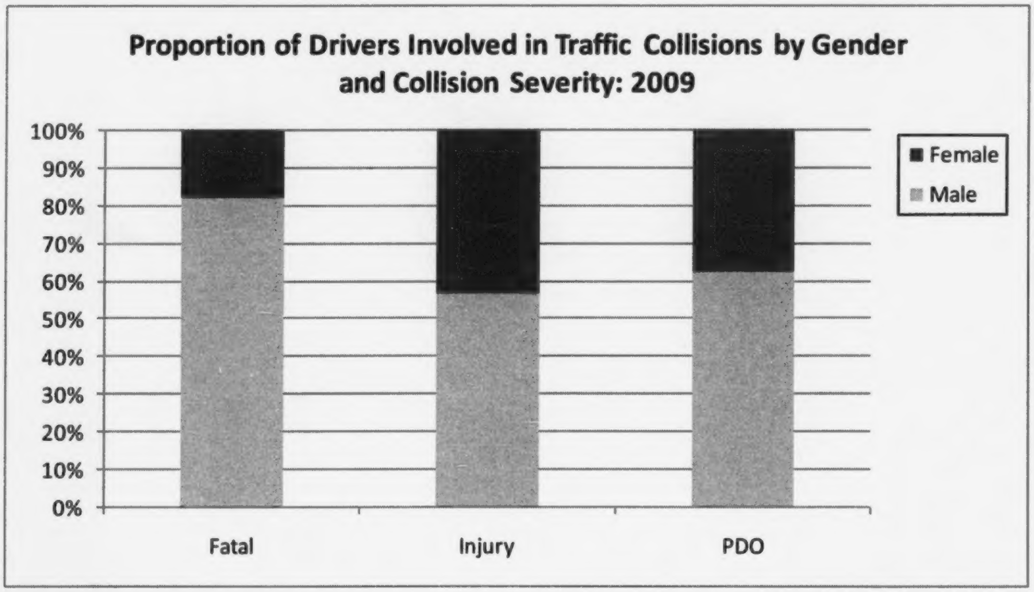
Table 8-5

Total Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity: 2009, 2004-2008 Average

Gender - Age Group		2009 Collision Severity						2009 Total Collisions*	% of 2009 Total Collisions	2004-2008 Average Count of Drivers				
		Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
Female	<16	1	4.8%	6	0.2%	20	0.2%	**27**	0.2%	0	9	23	32	0.2%
	16-19	2	9.5%	346	10.6%	1,064	11.4%	**1,412**	11.2%	4	423	1,199	1,627	11.4%
	20-24	4	19.0%	422	13.0%	1,165	12.5%	**1,591**	12.6%	7	506	1,231	1,744	12.2%
	25-34	5	23.8%	626	19.3%	1,687	18.1%	**2,318**	18.4%	5	770	1,780	2,555	17.9%
	35-44	3	14.3%	633	19.5%	1,683	18.0%	**2,319**	18.4%	6	852	2,040	2,898	20.3%
	45-54	4	19.0%	591	18.2%	1,720	18.4%	**2,315**	18.3%	4	710	1,904	2,618	18.4%
	55-64	0	-	386	11.9%	1,149	12.3%	**1,535**	12.2%	2	404	1,153	1,559	10.9%
	65+	2	9.5%	240	7.4%	858	9.2%	**1,100**	8.7%	5	252	957	1,214	8.5%
	Not Stated	0	-	130	-	664	-	**794**	-	0	147	524	671	-
	Total Female*	**21**	**100%**	**3,380**	**100%**	**10,010**	**100%**	**13,411**	100%	33	4,072	10,812	14,917	100%
Male	<16	1	1.0%	5	0.1%	13	<0.1%	**19**	<0.1%	1	13	29	42	0.2%
	16-19	9	9.4%	414	9.9%	1,662	10.6%	**2,085**	10.4%	8	522	1,996	2,526	11.2%
	20-24	12	12.5%	527	12.5%	1,853	11.8%	**2,392**	11.9%	15	602	2,101	2,718	12.1%
	25-34	16	16.7%	716	17.0%	2,605	16.5%	**3,337**	16.6%	18	905	2,960	3,883	17.2%
	35-44	15	15.6%	814	19.4%	2,804	17.8%	**3,633**	18.1%	19	990	3,181	4,191	18.6%
	45-54	18	18.8%	851	20.3%	3,013	19.1%	**3,882**	19.4%	14	892	3,219	4,125	18.3%
	55-64	8	8.3%	492	11.7%	2,091	13.3%	**2,591**	12.9%	12	566	2,157	2,735	12.1%
	65+	17	17.7%	381	9.1%	1,708	10.8%	**2,106**	10.5%	10	449	1,844	2,304	10.2%
	Not Stated	0	-	209	-	1,035	-	**1,244**	-	0	258	952	1,210	-
	Total Male*	**96**	**100%**	**4,409**	**100%**	**16,784**	**100%**	**21,289**	100%	97	5,197	18,439	23,733	100%

*Percentage of the total does not include the "not stated" category.

Figure 8-3 Proportion of Drivers Involved in Traffic Collisions by Gender and Collision Severity



The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2009 where the driver gender is known, 61% are male and 39% female.

- Fatal collisions: 82% involved male drivers, 18% female drivers.
- Injury collisions: 57% involved male drivers, 43% female drivers.
- PDO collisions: 63% involved male drivers, 37% female drivers.

The reader should note that the count of drivers involved in collisions does not take into account exposure to risk in terms of driving hours, driving kilometres or driving situations.

Table 8-6 Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity

Table 8-6

Total Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity: 2009, 2004-2008 Average

Age Group - Gender		2009 Collision Severity						2009 Total Collisions	% of 2009 Total Collisions*	2004-2008 Average Count of Drivers				
		Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
<16	Female	1	0.9%	6	<0.1%	20	<0.1%	**27**	<0.1%	0	9	23	32	<0.1%
	Male	1	0.9%	5	<0.1%	13	<0.1%	**19**	<0.1%	1	13	29	42	0.1%
16 to 24	Female	6	5.1%	768	10.3%	2,229	8.9%	**3,003**	9.2%	11	929	2,430	3,371	9.2%
	Male	21	17.9%	941	12.6%	3,515	14.0%	**4,477**	13.7%	23	1,124	4,096	5,244	14.3%
25 to 34	Female	5	4.3%	626	8.4%	1,687	6.7%	**2,318**	7.1%	5	770	1,780	2,555	6.9%
	Male	16	13.7%	716	9.6%	2,605	10.4%	**3,337**	10.2%	18	905	2,960	3,883	10.6%
35 to 44	Female	3	2.6%	633	8.5%	1,683	6.7%	**2,319**	7.1%	6	852	2,040	2,898	7.9%
	Male	15	12.8%	814	10.9%	2,804	11.2%	**3,633**	11.1%	19	990	3,181	4,191	11.4%
45 to 54	Female	4	3.4%	591	7.9%	1,720	6.9%	**2,315**	7.1%	4	710	1,904	2,618	7.1%
	Male	18	15.4%	851	11.4%	3,013	12.0%	**3,882**	11.9%	14	892	3,219	4,125	11.2%
55 to 64	Female	0	-	386	5.2%	1,149	4.6%	**1,535**	4.7%	2	404	1,153	1,559	4.2%
	Male	8	6.8%	492	6.6%	2,091	8.3%	**2,591**	7.9%	12	566	2,157	2,735	7.4%
65 and older	Female	2	1.7%	240	3.2%	858	3.4%	**1,100**	3.4%	5	252	957	1,214	3.3%
	Male	17	14.5%	381	5.1%	1,708	6.8%	**2,106**	6.4%	10	449	1,844	2,304	6.3%
Not Stated	Female	0	-	130	-	664	-	**794**	-	0	147	524	671	-
	Male	0	-	209	-	1,035	-	**1,244**	-	0	258	952	1,210	-
Total	Female	21	17.9%	3,380	43.5%	10,010	37.2%	**13,411**	38.5%	33	4,072	10,812	14,917	38.7%
	Male	96	82.1%	4,409	56.3%	16,784	62.7%	**21,289**	61.3%	97	5,197	18,439	23,733	61.3%

*Percentage of the total does not include the "not stated" category.

Young male drivers account for a higher proportion of collisions than any other group of drivers. In 2009:

- Male drivers aged 16 to 24 account for 14% of total collisions, 18% of fatal collisions, nearly 13% of injury collisions and 14% of PDO collisions; and,
- Female drivers aged 16 to 24 account for 9% of total collisions, 5% of fatal collisions, 10% of injury collisions and 9% of PDO collisions.

Table 8-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity

Table 8-7

Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity: 2009, 2004-2008 Average

Gender - Age Group		2009 Collision Severity			2009 Total Collisions	2004-2008 Average Count of Drivers			
		Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Female	<16	-	-	-	**-**	-	-	-	-
	16-19	0.9	152.3	468.3	**621.5**	1.7	191.5	542.4	735.6
	20-24	1.3	138.8	383.1	**523.2**	2.6	175.1	425.9	603.5
	25-34	0.8	102.5	276.3	**379.7**	0.8	133.2	307.8	441.8
	35-44	0.5	95.9	254.9	**351.3**	0.9	125.4	300.5	426.8
	45-54	0.5	76.8	223.4	**300.7**	0.5	98.5	263.9	362.8
	55-64	0.0	65.2	194.2	**259.5**	0.4	78.5	224.3	303.3
	65+	0.4	42.3	151.4	**194.1**	0.9	49.5	188.0	238.5
	Total	0.6	90.6	268.3	**359.5**	0.9	116.0	307.9	424.7
Male	<16	-	-	-	**-**	-	-	-	-
	16-19	3.7	172.0	690.4	**866.1**	3.5	222.2	849.7	1,075.4
	20-24	3.7	162.7	572.2	**738.7**	4.7	194.6	678.5	877.8
	25-34	2.5	111.0	403.7	**517.2**	2.9	148.2	484.7	635.9
	35-44	2.1	116.0	399.6	**517.8**	2.6	136.6	439.0	578.3
	45-54	2.2	101.9	360.6	**464.6**	1.8	113.5	409.6	524.9
	55-64	1.3	77.2	328.1	**406.5**	2.0	99.5	379.2	480.7
	65+	2.6	58.9	263.9	**325.4**	1.7	74.8	306.9	383.4
	Total	2.4	109.4	416.3	**528.0**	2.5	135.5	480.8	618.8

Male drivers are much more likely to be involved in a traffic collision than female drivers. The relative rate of involvement for men in traffic collisions in 2009 was 528.0, nearly one and a half times that of females (359.5). Relative involvement rates (per 10,000 licensed drivers) for collisions of differing severity:

- Fatal collisions: male rate – 2.4, female rate – 0.6.
- Injury collisions: male rate – 109.4, female rate – 90.6.
- PDO collisions: male rate – 416.3, female rate – 268.3.

The reader should note that the calculated relative involvement rates do not take into account exposure to risk in terms of driving hours, driving kilometres or driving situations.

In 2009, driver involvement rates for female drivers of all age groups are lower than for equivalent age groups of male drivers. However, young females, both in the 16 to 19 age bracket and the 20 to 24 age bracket, have higher driver involvement rates in total collisions than all male drivers aged 25 and older.

Young males, especially those aged 16 to 19, have the highest driver involvement rates of all driver-gender age groups.

Compared to the previous five year period (2004 to 2008) on average, driver involvement rates for all gender-age groups are down for total collisions, injury collisions and PDO collisions. However, when considering driver involvement rates in fatal collisions, there are some increases in the 2009 that stand out from the general downward trend, including:

- Female rates in fatal collisions increased 3% for those aged 25 to 34 and 4% for those aged 45 to 54; and,
- Male rates in fatal collisions increased 7% for those aged 16 to 19, nearly 18% for those aged 45 to 54 and nearly 55% for those aged 65 and older.

SECTION 9 – Contributing Factors

Introduction

This section examines the contributing factors to traffic collisions as reported by police on the Traffic Accident Report (TAR). Detail is provided for collision severity and for the age of the driver involved in the collision. Driver involvement rates (per 10,000 licensed drivers) in collisions with specific contributing factors are provided and discussed. Contributing factors at the collision level and for each victim are also examined.

Key Highlights
In 2009, half of the drivers involved in traffic collisions were recorded as not being at-fault in the collision. Another one in three (33%) had no contributing factors recorded for the collision.

- 43% of the drivers involved in a fatal collision were noted as not being at-fault.
- 52% of the drivers in an injury collision were noted as not being at-fault.
- 50% of the drivers in a PDO collision were noted as not being at-fault.

At-fault driver actions were recorded for 18% of the drivers involved in traffic collisions in 2009.

- 53% of the drivers involved in fatal collisions had an at-fault driver action recorded.
- 21% of the drivers involved in injury collisions had an at-fault driver action recorded.
- 17% of the drivers involved in PDO collisions had an at-fault driver action recorded.

At-fault human conditions were recorded as contributing factors for 4% of the drivers involved in traffic collisions in 2009.

- 25% of the drivers involved in fatal collisions had an at-fault human condition recorded.
- 6% of the drivers involved in injury collisions had an at-fault human condition recorded.
- 3% of the drivers involved in PDO collisions had an at-fault human condition recorded.

Environmental conditions were recorded as contributing factors for 15% of drivers involved in collisions in 2009, including 12% of the drivers involved in fatal collisions.

In 2009, the driver involvement rate (per 10,000 licensed drivers) in traffic collisions where:

- Any at-fault driver action was a contributing factor is 94.2, down 19% from the previous five years (115.9 on average in 2004 to 2008);
- "Speed" was a contributing factor is 18.7, down nearly 16% from the previous five years (22.2 on average in 2004 to 2008);
- "Careless driving" was a contributing factor is 8.0, down slightly from the previous five years (8.2 on average in 2004 to 2008);
- "Fail to yield right-of-way" was a contributing factor is 14.5, down 19% from the previous five years (17.9 on average in 2004 to 2008);
- "Lost control/Drove off road" was a contributing factor is 10.9, relatively unchanged from the previous five years (10.7 on average in 2004 to 2008);
- "Impaired" was a contributing factor is 4.8, down 15% from the previous five years (5.7 on average in 2004 to 2008);
- "Distraction/inattention" was a contributing factor is 13.8, down 27% from the previous five years (19.0 on average in 2004 to 2008);
- "Animal action - wild" was a contributing factor is 39.1, down nearly 16% from the previous five years (46.3 on average in 2004 to 2008); and,
- "Slippery road surface" was a contributing factor is 25.9, down 16% from the previous five years (30.9 on average in 2004 to 2008).

At the overall collision level in 2009, at least one driver involved in the collision was noted as having:

- An at-fault driver action as a contributing factor in 27% of all collisions (76% of fatal collisions; 35% of injury collisions; 25% of PDO collisions);
- An at-fault human condition as a contributing factor in 6% of all collisions (40% of fatal collisions; 10% of injury collisions; 5% of PDO collisions); and,
- Environmental conditions as a contributing factor in 22% of all collisions (13% of fatal collisions; 14% of injury collisions; 24% of PDO collisions).

The most prevalent at-fault contributing factors recorded for collisions in 2009 include:

- The actions of a wild animal – 11% of all collisions (none fatal; 4% injury; 14% PDO);
- "Slippery road surface" – 7% of all collisions (11% fatal; 6% injury; 7% PDO);
- "Speed" – 5% of all collisions (28% fatal; 8% injury; 5% PDO);
- "Fail to yield right-of-way" – 4% of all collisions (4% fatal; 5% injury; 4% PDO);
- "Following too closely" – 4% of all collisions (1% fatal; 5% injury; 4% PDO);
- "Distraction/inattention" – 4% of all collisions (4% fatal; 6% injury; 4% PDO);
- "Lost control/Drive off the road" – 3% of all collisions (34% fatal; 6% injury; 2% PDO); and,
- "Impaired" – 2% of all collisions (28% fatal; 3% injury; 1% PDO).

In 2009:

- 38% of all victims resulted from a collision where at least one driver was noted as having an at-fault driver action contributing to the collision (76% of victims killed; 52% of victims seriously injured);
- 12% of all victims resulted from a collision where at least one driver was noted as having an at-fault human conditions contributing to the collision (41% of victims killed; 23% of victims seriously injured); and,
- 14% of all victims resulted from a collision where at least one driver was noted as having environmental conditions contributing to the collision (13% of victims killed; 16% of victims seriously injured).

The most prevalent at-fault contributing factors recorded for collisions where victims are killed or seriously injured include:

- "Lost control/Drive off the road" – 33% of victims killed and 15% of victims seriously injured;
- "Impaired" – 29% of victims killed and 12% of victims seriously injured;
- "Speed" – 28% of victims killed and 14% of victims seriously injured;
- "Careless driving" – 20% of victims killed and 11% of victims seriously injured;
- "Slippery road surface" – 11% of victims killed and 7% of victims seriously injured;
- "Leave stop sign before safe to do so" – 6% of victims killed and 3% of victims seriously injured;
- "Disobey traffic control device" – 5% of victims killed and 6% of victims seriously injured;
- "Loss of consciousness/Blackout prior to collision" – 5% of victims killed and less than 1% of victims seriously injured;
- "Fail to yield right-of-way" – 4% of victims killed and 7% of victims seriously injured;
- "Distraction/Inattention" – 4% of victims killed and 6% of victims seriously injured; and,
- "Driver inexperience" – 4% of victims killed and 6% of victims seriously injured.

Major Elements Examined

Counts of drivers involved in collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

When reviewing the "Contributing Factors" for a traffic collision, the reader is cautioned to note that more than one contributing factor can be recorded for each collision. The total count of contributing factors noted will add to more than the number of collisions, vehicles, drivers or victims in those crashes.

For the purposes of this report, "speed" as a contributing factor is discussed as being a combination of the individual factors "exceeding speed limit", "driving too fast for conditions" and "unsafe operating speed (too fast or too slow)".

For the purposes of this report, "impaired" as a contributing factor is discussed as being a combination of the individual factors "ability impaired by alcohol", "ability impaired by drugs" and "had been drinking/suspected alcohol use".

It is important to note that the number of collisions is not equal to the number of drivers involved in those collisions because some collisions involve more than one driver while others involve a single driver. (A full definition of what constitutes a "driver" for this report is provided under the "Terms and Definitions" heading.) Because there are more drivers involved in collisions than collisions overall, relative involvement rates calculated based on the number of drivers will be higher than the relative involvement rates calculated based on the number of collisions.

When exploring the number of drivers in different age groups involved in traffic collisions, the reader is cautioned that the driver's age is missing in some collisions. In 2009, one in five drivers (19%) is not identified by age. In the five year period (2004 to 2008) on average, 21% of the drivers are not identified by age.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Contributing Factor"

- Those circumstances or factors that the reporting police officer recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Drivers"

- The number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed to drive in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This relative involvement rate does not take into account the number of vehicle kilometres driven by each driver group. More detail regarding the methodology used to count licensed drivers can be found in "*Section 2 Licensed Drivers*" of this report.

Table 9-1 Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity

Table 9-1

Drivers Involved in Collisions by Contributing Factors and Collision Severity: 2009

Contributing Factor	2009 Collision Severity						**2009 Total Drivers**	**% of 2009 Total Drivers**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	34	28.3%	2,830	31.7%	9,094	28.4%	**11,958**	29.1%
Driver Action - Driving properly	5	4.2%	511	5.7%	1,881	5.9%	**2,397**	5.8%
Any At-fault Driver Action	63	52.5%	1,858	20.8%	5,392	16.8%	**7,313**	17.8%
Following too closely	1	0.8%	270	3.0%	839	2.6%	**1,110**	2.7%
Turning improperly	2	1.7%	128	1.4%	442	1.4%	**572**	1.4%
Passing improperly	1	0.8%	17	0.2%	106	0.3%	**124**	0.3%
Changing lanes improperly	0	-	43	0.5%	319	1.0%	**362**	0.9%
Fail to yield right-of-way	3	2.5%	273	3.1%	847	2.6%	**1,123**	2.7%
Disobey traffic control device/officer	4	3.3%	173	1.9%	303	0.9%	**480**	1.2%
Drive wrong way on roadway	0	-	6	<0.1%	16	<0.1%	**22**	<0.1%
Passing a vehicle at pedestrian X-walk	0	-	2	<0.1%	1	<0.1%	**3**	<0.1%
Back unsafely	0	-	20	0.2%	459	1.4%	**479**	1.2%
Parking improperly	0	-	1	<0.1%	36	0.1%	**37**	<0.1%
Careless Driving	16	13.3%	222	2.5%	385	1.2%	**623**	1.5%
Lost control/Drive off road	27	22.5%	345	3.9%	477	1.5%	**849**	2.1%
Driverless vehicle ran out of control	0	-	2	<0.1%	5	<0.1%	**7**	<0.1%
Leave stop sign before safe to do so	5	4.2%	87	1.0%	167	0.5%	**259**	0.6%
Failed to signal	0	-	5	<0.1%	12	<0.1%	**17**	<0.1%
Take avoiding action	2	1.7%	98	1.1%	328	1.0%	**428**	1.0%
Driver inexperience	3	2.5%	85	1.0%	256	0.8%	**344**	0.8%
Pedestrian error/confusion	2	1.7%	16	0.2%	5	<0.1%	**23**	<0.1%
NET Speed	23	19.2%	430	4.8%	1,000	3.1%	**1,453**	3.5%
Exceeding speed limit	10	8.3%	40	0.4%	67	0.2%	**117**	0.3%
Driving too fast for conditions	9	7.5%	237	2.7%	849	2.6%	**1,095**	2.7%
Unsafe operating speed (Too fast or too slow)	5	4.2%	164	1.8%	109	0.3%	**278**	0.7%

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						2009 Total Drivers	% of 2009 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	12	10.0%	1,284	14.4%	5,013	15.6%	**6,309**	15.4%
Any At-fault Human Condition	30	25.0%	510	5.7%	1,097	3.4%	**1,637**	4.0%
Loss of consciousness/Blackout prior to collision	4	3.3%	16	0.2%	15	<0.1%	**35**	<0.1%
Extreme fatigue/Fell asleep	0	-	44	0.5%	51	0.2%	**95**	0.2%
Defective eyesight	1	0.8%	3	<0.1%	11	<0.1%	**15**	<0.1%
Defective hearing	0	-	0	-	2	<0.1%	**2**	<0.1%
Medical disability	0	-	12	0.1%	11	<0.1%	**23**	<0.1%
Physical disability	0	-	6	<0.1%	9	<0.1%	**15**	<0.1%
Mental disability	0	-	2	<0.1%	4	<0.1%	**6**	<0.1%
Mental confusion/Inability to remember	0	-	8	<0.1%	16	<0.1%	**24**	<0.1%
Sudden illness	2	1.7%	5	<0.1%	9	<0.1%	**16**	<0.1%
Distraction/Inattention	3	2.5%	296	3.3%	776	2.4%	**1,075**	2.6%
Exceed hours of service (commercial drivers only)	0	-	1	<0.1%	0	-	**1**	<0.1%
NET Impaired	21	17.5%	137	1.5%	216	0.7%	**374**	0.9%
Ability impaired alcohol	10	8.3%	94	1.1%	142	0.4%	**246**	0.6%
Ability impaired drugs	0	-	4	<0.1%	12	<0.1%	**16**	<0.1%
Had been drinking/Suspected alcohol use	11	9.2%	50	0.6%	76	0.2%	**137**	0.3%
No apparent (vehicle) defect	50	41.7%	3,934	44.0%	12,411	38.7%	**16,395**	39.9%
Any At-fault Vehicle Defect	1	0.8%	64	0.7%	141	0.4%	**206**	0.5%
Defective brakes	0	-	19	0.2%	29	<0.1%	**48**	0.1%
Defective steering	0	-	5	<0.1%	12	<0.1%	**17**	<0.1%
Defective headlights	0	-	2	<0.1%	5	<0.1%	**7**	<0.1%
Defective brake lights	0	-	0	-	1	<0.1%	**1**	<0.1%
Defective lighting (unspecified)	0	-	0	-	4	<0.1%	**4**	<0.1%
Defective engine controls/drive train	0	-	4	<0.1%	10	<0.1%	**14**	<0.1%
Defective suspension/wheels	0	-	3	<0.1%	8	<0.1%	**11**	<0.1%
Defective tires	0	-	9	0.1%	24	<0.1%	**33**	<0.1%
Tow hitch/yoke defective	0	-	2	<0.1%	3	<0.1%	**5**	<0.1%
Defective exhaust system	0	-	1	<0.1%	0	-	**1**	<0.1%
Hood/tailgate/door/covering opened	0	-	8	<0.1%	14	<0.1%	**22**	<0.1%
Defective glazing (obscured windows)	0	-	6	<0.1%	6	<0.1%	**12**	<0.1%
Vehicle modifications	0	-	0	-	3	<0.1%	**3**	<0.1%
Fire	0	-	0	-	0	-	**0**	-

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						**2009 Total Drivers**	**% of 2009 Total Drivers**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Overloaded/oversized	1	0.8%	1	<0.1%	2	<0.1%	**4**	<0.1%
Load shifted/spilled	0	-	0	-	10	<0.1%	**10**	<0.1%
Jack-knife/trailer swing	0	-	1	<0.1%	8	<0.1%	**9**	<0.1%
Hydroplaning tires	0	-	4	<0.1%	3	<0.1%	**7**	<0.1%
Any At-fault Environmental Condition	14	11.7%	790	8.8%	5,160	16.1%	**5,964**	14.5%
Animal action - Wild	0	-	192	2.1%	2,844	8.9%	**3,036**	7.4%
Animal action - Domestic	0	-	19	0.2%	130	0.4%	**149**	0.4%
Slippery road surface	12	10.0%	373	4.2%	1,627	5.1%	**2,012**	4.9%
Snow drift	0	-	10	0.1%	86	0.3%	**96**	0.2%
Obstruction/debris on roadway	0	-	10	0.1%	64	0.2%	**74**	0.2%
View obstructed/limited	2	1.7%	59	0.7%	179	0.6%	**240**	0.6%
Glare/reflection	0	-	15	0.2%	38	0.1%	**53**	0.1%
Construction zone	0	-	8	<0.1%	29	<0.1%	**37**	<0.1%
Defective driving surface	0	-	38	0.4%	107	0.3%	**145**	0.4%
Shoulders defective	0	-	4	<0.1%	15	<0.1%	**19**	<0.1%
Lane markings inadequate	0	-	2	<0.1%	8	<0.1%	**10**	<0.1%
Defective/inoperative traffic control device	0	-	6	<0.1%	8	<0.1%	**14**	<0.1%
Weather	0	-	71	0.8%	149	0.5%	**220**	0.5%
Pedestrian corridor in use	0	-	9	0.1%	0	-	**9**	<0.1%
Uninvolved vehicle	0	-	15	0.2%	44	0.1%	**59**	0.1%
Uninvolved pedestrian	0	-	8	<0.1%	17	<0.1%	**25**	<0.1%
Presence of prior accident	0	-	6	<0.1%	22	<0.1%	**28**	<0.1%
No contributing factor(s) identified	8	6.7%	2,771	31.0%	10,666	33.3%	**13,445**	32.7%
Not applicable/Not stated	0	-	0	-	2	<0.1%	**2**	<0.1%
Total	120	100%	8,938	100.0%	32,039	100.0%	**41,097**	**100.0%**

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-1a Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity for Previous Five Years

Table 9-1a

Drivers Involved in Collisions by Contributing Factors and Collision Severity: 2004 to 2008 Average

Contributing Factor	2004-2008 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Victims
Driver Action - Driving Properly and Human Condition - Apparently Normal	31	3,674	10,436	14,142	30.2%
Driver Action - Driving properly	5	461	1,590	2,056	4.4%
Any At-fault Driver Action	60	2,260	6,193	8,514	18.2%
Following too closely	1	321	784	1,106	2.4%
Turning improperly	2	141	456	598	1.3%
Passing improperly	3	29	101	133	
Changing lanes improperly	0	45	292	337	0.7%
Fail to yield right-of-way	5	394	915	1,314	2.8%
Disobey traffic control device/officer	3	205	329	537	1.1%
Drive wrong way on roadway	3	11	21	35	<0.1%
Passing a vehicle at pedestrian X-walk	0	3	1	4	<0.1%
Back unsafely	0	33	850	883	1.9%
Parking improperly	1	3	66	70	0.1%
Careless Driving	9	218	376	604	1.3%
Lost control/Drive off road	16	293	474	783	1.7%
Driverless vehicle ran out of control	0	3	10	13	<0.1%
Leave stop sign before safe to do so	1	113	207	321	0.7%
Failed to signal	0	3	14	16	<0.1%
Take avoiding action	3	103	261	366	0.8%
Driver inexperience	4	130	333	467	1.0%
Pedestrian error/confusion	2	18	10	30	<0.1%
NET Speed	22	476	1,130	1,629	3.5%
Exceeding speed limit	9	55	84	148	0.3%
Driving too fast for conditions	10	364	963	1,337	2.9%
Unsafe operating speed (Too fast or too slow)	5	66	105	176	0.4%
Human Condition - Apparently Normal	18	1,691	5,555	7,264	15.5%
Any At-fault Human Condition	39	662	1,327	2,028	4.3%
Loss of consciousness/Blackout prior to collision	2	29	13	44	<0.1%
Extreme fatigue/Fell asleep	2	48	64	114	0.2%
Defective eyesight	0	5	12	17	<0.1%
Defective hearing	0	1	3	5	<0.1%
Medical disability	0	8	10	18	<0.1%
Physical disability	0	3	14	18	<0.1%
Mental disability	0	3	4	7	<0.1%
Mental confusion/Inability to remember	0	12	15	26	<0.1%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004-2008 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Victims
Sudden illness	1	7	6	13	<0.1%
Distraction/Inattention	8	414	974	1,397	
Exceed hours of service (commercial drivers only)	0	1	1	2	<0.1%
NET Impaired	26	157	235	418	0.9%
Ability impaired alcohol	14	104	155	273	0.6%
Ability impaired drugs	2	6	6	14	<0.1%
Had been drinking/Suspected alcohol use	12	55	84	151	0.3%
No apparent (vehicle) defect	61	5,226	14,079	19,366	41.3%
Any At-fault Vehicle Defect	2	65	213	281	0.6%
Defective brakes	0	17	42	58	0.1%
Defective steering	0	4	11	15	<0.1%
Defective headlights	1	2	3	6	<0.1%
Defective brake lights	0	1	5	6	<0.1%
Defective lighting (unspecified)	0	3	4	6	<0.1%
Defective engine controls/drive train	0	5	18	23	<0.1%
Defective suspension/wheels	0	5	12	17	<0.1%
Defective tires	1	14	36	51	0.1%
Tow hitch/yoke defective	0	1	9	10	<0.1%
Defective exhaust system	0	1	1	2	<0.1%
Hood/tailgate/door/covering opened	0	1	9	10	<0.1%
Defective glazing (obscured windows)	0	2	6	8	<0.1%
Vehicle modifications	0	2	22	24	<0.1%
Fire	0	1	4	5	<0.1%
Overloaded/oversized	0	1	3	4	<0.1%
Load shifted/spilled	0	4	15	19	<0.1%
Jack-knife/trailer swing	0	2	12	15	<0.1%
Hydroplaning tires	0	2	5	6	<0.1%
Any At-fault Environmental Condition	17	1,002	5,842	6,860	14.6%
Animal action - Wild	1	202	3,200	3,403	7.3%
Animal action - Domestic	1	23	144	168	0.4%
Slippery road surface	10	506	1,755	2,272	4.8%
Snow drift	0	32	138	171	0.4%
Obstruction/debris on roadway	0	19	111	131	0.3%
View obstructed/limited	2	77	263	342	0.7%
Glare/reflection	1	25	51	77	0.2%
Construction zone	0	9	24	34	<0.1%
Defective driving surface	0	48	118	166	0.4%
Shoulders defective	0	6	17	22	<0.1%
Lane markings inadequate	0	2	3	5	<0.1%
Defective/inoperative traffic control device	0	6	9	15	<0.1%
Weather	2	85	210	298	0.6%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004-2008 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Victims
Pedestrian corridor in use	0	12	5	17	<0.1%
Uninvolved vehicle	0	25	80	104	0.2%
Uninvolved pedestrian	0	7	13	20	<0.1%
Presence of prior accident	0	10	16	26	<0.1%
No contributing factor(s) identified	16	3,296	12,457	15,768	33.7%
Not applicable/Not stated	0	1	1	1	<0.1%
Total	131	10,814	35,901	46,845	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

In 2009, half of the drivers involved in traffic collisions were recorded as not being at-fault in the collision. Twenty-nine percent of drivers involved in collisions were noted in the traffic accident report (TAR) as both "driving properly" and being "apparently normal" at the time of a collision. Another 6% of drivers were noted as "driving properly" and 15% were noted as being in "apparently normal" human condition, while no other at-fault factors were noted in the TAR.

- 43% of drivers involved in a fatal collision were noted as not being at-fault.
- 52% of the drivers in an injury collision were noted as not being at-fault.

At-fault driver actions were recorded for 18% of the drivers involved in traffic collisions in 2009. This is unchanged from the previous five years (2004 to 2008) on average, where 18% of drivers were recorded as being at-fault for some driver action. In 2009:

- 53% of the drivers involved in fatal collisions had an at-fault driver action recorded, including:
  - 23% who "lost control/drove off road";
  - 19% who were speeding (including "exceeding speed limit", "driving too fast for conditions" and "Unsafe operating speed"); and,
  - 13% where "careless driving" was recorded.
- 21% of the drivers involved in injury collisions had an at-fault driver action recorded, including:
  - 4% who "lost control/drove off road";
  - 5% who were speeding;
  - 3% who were noted to "fail to yield right-of-way";
  - 3% who were "following too closely"; and,
  - Nearly 3% who were noted to be "careless driving".
- 17% of the drivers involved in PDO collisions had an at-fault driver action recorded.

At-fault human conditions were recorded for 4% of the drivers involved in traffic collisions in 2009, virtually unchanged from the previous five years (2004 to 2008) on average. In 2009:

- 25% of the drivers involved in fatal collisions had an at-fault human condition recorded, including:
  - 18% who were impaired (including "ability impaired by alcohol", "ability impaired by drugs" and "had been drinking/suspected alcohol use");
  - 3% where "loss of consciousness/blackout prior to collision" was recorded; and,
  - 3% where "distraction/inattention" was recorded.
- 6% of the drivers involved in injury collisions had an at-fault human condition recorded, including:
  - Nearly 2% who were impaired; and,
  - 3% where "distraction/inattention" was recorded.

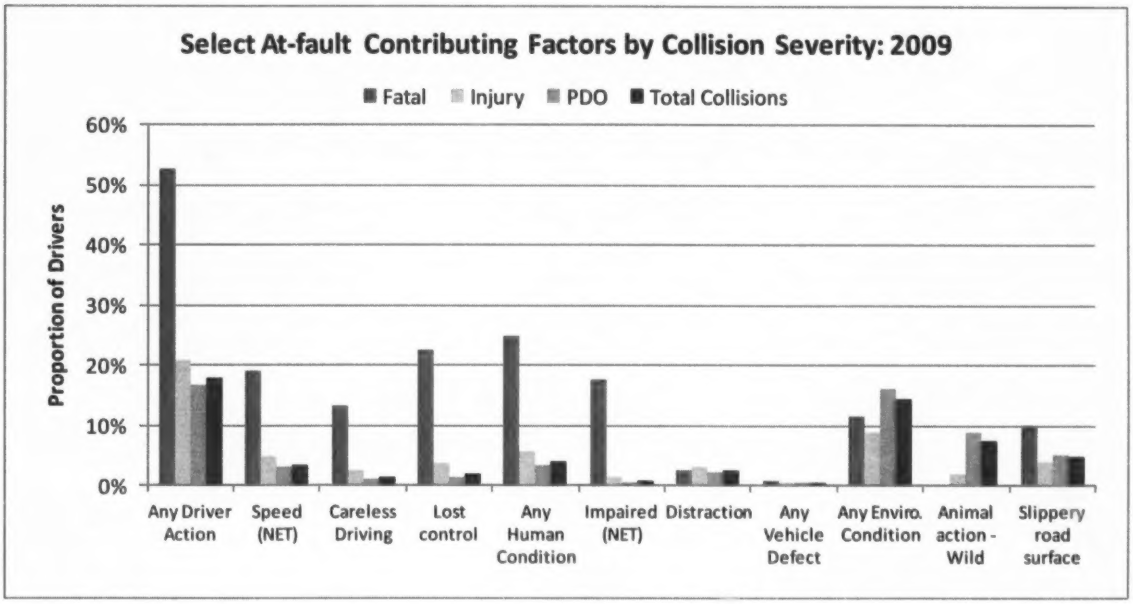
An at-fault vehicle defect was recorded for about half-of-one percent of traffic collisions in 2009 and in the previous five years (2004 to 2008) on average.

Environmental conditions were recorded as contributing factors for nearly 15% of drivers involved in collisions (12% of fatal collisions, 9% of injury collisions and 16% of PDO collisions) in 2009 and 15% of the traffic collisions in the previous five years (2004 to 2008) on average. In 2009:

- 7% of collisions had "animal action – wild" recorded as a contributing factor (none fatal; 2% injury); and,
- 5% of collisions had "slippery road surface" recorded as a contributing factor (10% fatal; 4% injury).

NOTE: For a detailed historical count of contributing factors recorded for collisions occurring in each year from 2004 to 2009, please refer to "*Table 9-10 Historical Summary of Contributing Factors for Drivers Involved in Collisions: 2004 to 2009*" at the end of this section.

Figure 9-1 Select At-fault Contributing Factors by Collision Severity



While many contributing factors are recorded for traffic collisions, in general, there are only a few of these factors recorded that account for a large proportion of traffic collisions in Manitoba. In 2009, at-fault driver actions and human conditions are most often recorded for fatal traffic collisions, with the most frequent of these being impaired driving, speeding, losing control of the vehicle and careless driving. Environmental conditions are recorded most often for PDO collisions.

Table 9-2 Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collisions Severity

Table 9-2

Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collision Severity: 2009, 2004-2008 Average

Contributing Factor	2009 Collision Severity			**2009 Total**	2004-2008 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any At-fault Driver Action	0.8	23.9	69.5	**94.2**	0.8	30.8	84.3	115.9
Following too closely	<0.1	3.5	10.8	**14.3**	<0.1	4.4	10.7	15.1
Turning improperly	<0.1	1.6	5.7	**7.4**	<0.1	1.9	6.2	8.1
Passing improperly	<0.1	0.2	1.4	**1.6**	<0.1	0.4	1.4	1.8
Changing lanes improperly	-	0.6	4.1	**4.7**	<0.1	0.6	4.0	4.6
Fail to yield right-of-way	<0.1	3.5	10.9	**14.5**	<0.1	5.4	12.5	17.9
Disobey traffic control device/officer	<0.1	2.2	3.9	**6.2**	<0.1	2.8	4.5	7.3
Drive wrong way on roadway	-	<0.1	0.2	**0.3**	<0.1	0.1	0.3	0.5
Passing a vehicle at pedestrian X-walk	-	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Back unsafely	-	0.3	5.9	**6.2**	-	0.5	11.6	12.0
Parking improperly	-	<0.1	0.5	**0.5**	<0.1	<0.1	0.9	0.9
Careless Driving	0.2	2.9	5.0	**8.0**	0.1	3.0	5.1	8.2
Lost control/Drive off road	0.3	4.4	6.1	**10.9**	0.2	4.0	6.4	10.7
Driverless vehicle ran out of control	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	0.1	0.2
Leave stop sign before safe to do so	<0.1	1.1	2.2	**3.3**	<0.1	1.5	2.8	4.4
Failed to signal	-	<0.1	0.2	**0.2**	-	<0.1	0.2	0.2
Take avoiding action	<0.1	1.3	4.2	**5.5**	<0.1	1.4	3.5	5.0
Driver inexperience	<0.1	1.1	3.3	**4.4**	<0.1	1.8	4.5	6.4
Pedestrian error/confusion	<0.1	0.2	<0.1	**0.3**	<0.1	0.2	0.1	0.4
NET Speed	0.3	5.5	12.9	**18.7**	0.3	6.5	15.4	22.2
Exceeding speed limit	0.1	0.5	0.9	**1.5**	0.1	0.7	1.1	2.0
Driving too fast for conditions	0.1	3.1	10.9	**14.1**	0.1	5.0	13.1	18.2
Unsafe operating speed (Too fast or too slow)	<0.1	2.1	1.4	**3.6**	<0.1	0.9	1.4	2.4
Any At-fault Human Condition	0.4	6.6	14.1	**21.1**	0.5	9.0	18.1	27.6
Loss of consciousness/Blackout prior to collision	<0.1	0.2	0.2	**0.5**	<0.1	0.4	0.2	0.6
Extreme fatigue/Fell asleep	-	0.6	0.7	**1.2**	<0.1	0.7	0.9	1.6
Defective eyesight	<0.1	<0.1	0.1	**0.2**	<0.1	<0.1	0.2	0.2
Defective hearing	-	-	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity			2009 Total	2004-2008 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Medical disability	-	0.2	0.1	**0.3**	<0.1	0.1	0.1	0.3
Physical disability	-	<0.1	0.1	**0.2**	<0.1	<0.1	0.2	0.2
Mental disability	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Mental confusion/Inability to remember	-	0.1	0.2	**0.3**	-	0.2	0.2	0.4
Sudden illness	<0.1	<0.1	0.1	**0.2**	<0.1	<0.1	<0.1	0.2
Distraction/Inattention	<0.1	3.8	10.0	**13.8**	0.1	5.6	13.3	19.0
Exceed hours of service (commercial drivers only)	-	<0.1	-	**<0.1**	-	<0.1	<0.1	<0.1
NET Impaired	0.3	1.8	2.8	**4.8**	0.3	2.1	3.2	5.7
Ability impaired alcohol	0.1	1.2	1.8	**3.2**	0.2	1.4	2.1	3.7
Ability impaired drugs	-	<0.1	0.2	**0.2**	<0.1	<0.1	<0.1	0.2
Had been drinking/Suspected alcohol use	0.1	0.6	1.0	**1.8**	0.2	0.8	1.1	2.1
Any At-fault Vehicle Defect	<0.1	0.8	1.8	**2.7**	<0.1	0.9	2.9	3.8
Defective brakes	-	0.2	0.4	**0.6**	-	0.2	0.6	0.8
Defective steering	-	<0.1	0.2	**0.2**	-	<0.1	0.1	0.2
Defective headlights	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Defective brake lights	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective lighting (unspecified)	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective engine controls/drive train	-	<0.1	0.1	**0.2**	-	<0.1	0.2	0.3
Defective suspension/wheels	-	<0.1	0.1	**0.1**	<0.1	<0.1	0.2	0.2
Defective tires	-	0.1	0.3	**0.4**	<0.1	0.2	0.5	0.7
Tow hitch/yoke defective	-	<0.1	<0.1	**<0.1**	-	<0.1	0.1	0.1
Defective exhaust system	-	<0.1	-	**<0.1**	<0.1	<0.1	<0.1	<0.1
Hood/tailgate/door/covering opened	-	0.1	0.2	**0.3**	-	<0.1	0.1	0.1
Defective glazing (obscured windows)	-	<0.1	<0.1	**0.2**	-	<0.1	<0.1	0.1
Vehicle modifications	-	-	<0.1	**<0.1**	<0.1	<0.1	0.3	0.3
Fire	-	-	-	**-**	-	<0.1	<0.1	<0.1
Overloaded/oversized	<0.1	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Load shifted/spilled	-	-	0.1	**0.1**	-	<0.1	0.2	0.3
Jack-knife/trailer swing	-	<0.1	0.1	**0.1**	<0.1	<0.1	0.2	0.2
Hydroplaning tires	-	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity			2009 Total	2004-2008 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any At-fault Environmental Condition	0.2	10.2	66.5	**76.8**	0.2	13.6	79.5	93.4
Animal action - Wild	-	2.5	36.6	**39.1**	<0.1	2.8	43.5	46.3
Animal action - Domestic	-	0.2	1.7	**1.9**	<0.1	0.3	2.0	2.3
Slippery road surface	0.2	4.8	21.0	**25.9**	0.1	6.9	23.9	30.9
Snow drift	-	0.1	1.1	**1.2**	<0.1	0.4	1.9	2.3
Obstruction/debris on roadway	-	0.1	0.8	**1.0**	<0.1	0.3	1.5	1.8
View obstructed/limited	<0.1	0.8	2.3	**3.1**	<0.1	1.0	3.6	4.7
Glare/reflection	-	0.2	0.5	**0.7**	<0.1	0.3	0.7	1.0
Construction zone	-	0.1	0.4	**0.5**	-	0.1	0.3	0.5
Defective driving surface	-	0.5	1.4	**1.9**	<0.1	0.7	1.6	2.3
Shoulders defective	-	<0.1	0.2	**0.2**	-	<0.1	0.2	0.3
Lane markings inadequate	-	<0.1	0.1	**0.1**	-	<0.1	<0.1	<0.1
Defective/inoperative traffic control device	-	<0.1	0.1	**0.2**	<0.1	<0.1	0.1	0.2
Weather	-	0.9	1.9	**2.8**	<0.1	1.2	2.9	4.1
Pedestrian corridor in use	-	0.1	-	**0.1**	-	0.2	<0.1	0.2
Uninvolved vehicle	-	0.2	0.6	**0.8**	-	0.3	1.1	1.4
Uninvolved pedestrian	-	0.1	0.2	**0.3**	-	<0.1	0.2	0.3
Presence of prior accident	-	<0.1	0.3	**0.4**	<0.1	0.1	0.2	0.4

Recognizing that counts of drivers involved in collisions could be impacted either positively or negatively by changing population statistics, relative involvement rates per 10,000 licensed drivers is examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on the rate at which drivers are involved in collisions instead of simply a raw count of the number of drivers involved overall.

Driver involvement (per 10,000 licensed drivers) in collisions where an at-fault contributing factor has been recorded is generally down in 2009 compared to the previous five years (2004 to 2008) on average. Driver involvement rates for most contributing factors have decreased for total traffic collisions, but some specific factors and/or contributing factors involved in some collision severities have actually increased.

In 2009, the driver involvement rate (per 10,000 licensed drivers) in traffic collisions where:

- Any at-fault driver action was a contributing factor is 94.2, down 19% from the previous five years (115.9 on average in 2004 to 2008);
- "Speed" was a contributing factor is 18.7, down nearly 16% from the previous five years (22.2 on average in 2004 to 2008);
- "Careless driving" was a contributing factor is 8.0, down slightly from the previous five years (8.2 on average in 2004 to 2008);
- "Fail to yield right-of-way" was a contributing factor is 14.5, down 19% from the previous five years (17.9 on average in 2004 to 2008);
- "Lost control/Drove off road" was a contributing factor is 10.9, relatively unchanged from the previous five years (10.7 on average in 2004 to 2008);
- "Impaired" was a contributing factor is 4.8, down 15% from the previous five years (5.7 on average in 2004 to 2008);
- "Distraction/inattention" was a contributing factor is 13.8, down 27% from the previous five years (19.0 on average in 2004 to 2008);
- "Animal action - wild" was a contributing factor is 39.1, down nearly 16% from the previous five years (46.3 on average in 2004 to 2008); and,
- "Slippery road surface" was a contributing factor is 25.9, down 16% from the previous five years (30.9 on average in 2004 to 2008).

In 2009, the driver involvement rate (per 10,000 licensed drivers) in fatal traffic collisions where:

- Any at-fault driver action was a contributing factor is 0.8, relatively unchanged from the previous five years;
- "Careless driving" was a contributing factor is 0.2, up from 0.1 in the previous five years;
- "Lost control/Drove off road" was a contributing factor is 0.3 in 2009, up from 0.2 in the previous five years;
- "Speed" was a contributing factor is 0.3, relatively unchanged from the previous five years;
- Any at-fault human condition was a contributing factor is 0.4, down from 0.5 in the previous five years;
- "Impaired" was a contributing factor is 0.3, relatively unchanged from the previous five years; and,
- "Slippery road surface" was a contributing factor is 0.2, up from 0.1 in the previous five years.

Table 9-3 Drivers Involved in Fatal Collisions by Contributing Factors and Age Group

Table 9-3

Drivers Involved in Fatal Collisions by Contributing Factors and Age Group: 2009

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	5	45.5%	1	6.3%	5	23.8%	11	61.1%	9	40.9%	3	37.5%	2	10.5%
Driver Action - Driving properly	0	-	0	-	0	-	1	5.6%	4	18.2%	0	-	0	-
Any At-fault Driver Action	7	63.6%	11	68.8%	16	76.2%	6	33.3%	5	22.7%	5	62.5%	11	57.9%
Following too closely	0	-	0	-	0	-	0	-	0	-	1	12.5%	0	-
Turning improperly	0	-	0	-	0	-	0	-	1	4.5%	0	-	1	5.3%
Passing improperly	0	-	0	-	0	-	0	-	0	-	1	12.5%	0	-
Changing lanes improperly	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Fail to yield right-of-way	0	-	0	-	3	14.3%	0	-	0	-	0	-	0	-
Disobey traffic control device/officer	0	-	0	-	0	-	1	5.6%	1	4.5%	0	-	1	5.3%
Drive wrong way on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Back unsafely	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Parking improperly	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Careless Driving	3	27.3%	4	25.0%	3	14.3%	2	11.1%	0	-	2	25.0%	1	5.3%
Lost control/Drive off road	4	36.4%	7	43.8%	6	28.6%	2	11.1%	1	4.5%	2	25.0%	5	26.3%
Driverless vehicle ran out of control	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Leave stop sign before safe to do so	1	9.1%	1	6.3%	0	-	0	-	1	4.5%	0	-	2	10.5%
Failed to signal	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Take avoiding action	0	-	0	-	0	-	0	-	2	9.1%	0	-	0	-
Driver inexperience	1	9.1%	0	-	1	4.8%	0	-	0	-	0	-	0	-
Pedestrian error/confusion	0	-	0	-	0	-	1	5.6%	0	-	1	12.5%	1	5.3%
NET Speed	5	45.5%	3	18.8%	10	47.6%	0	-	0	-	1	12.5%	3	15.8%
Exceeding speed limit	2	18.2%	2	12.5%	5	23.8%	0	-	0	-	0	-	0	-
Driving too fast for conditions	2	18.2%	1	6.3%	4	19.0%	0	-	0	-	1	12.5%	1	5.3%
Unsafe operating speed (Too fast or too slow)	2	18.2%	0	-	1	4.8%	0	-	0	-	0	-	2	10.5%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	0	-	2	12.5%	5	23.8%	0	-	4	18.2%	0	-	2	10.5%
Any At-fault Human Condition	4	36.4%	6	37.5%	4	19.0%	5	27.8%	2	9.1%	2	25.0%	7	36.8%
Loss of consciousness/Blackout prior to collision	0	-	1	6.3%	0	-	0	-	1	4.5%	0	-	2	10.5%
Extreme fatigue/Fell asleep	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective eyesight	0	-	0	-	0	-	0	-	0	-	1	12.5%	0	-
Defective hearing	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Medical disability	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Physical disability	0	-	0	-	0	-	0	-	0	-	0	-	1	5.3%
Mental disability	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Mental confusion/Inability to remember	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Sudden illness	0	-	0	-	0	-	0	-	0	-	0	-	2	10.5%
Distraction/Inattention	1	9.1%	0	-	0	-	0	-	1	4.5%	0	-	1	5.3%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NET Impaired	3	27.3%	5	31.3%	4	19.0%	5	27.8%	0	-	1	12.5%	2	10.5%
Ability impaired alcohol	1	9.1%	3	18.8%	3	14.3%	2	11.1%	0	-	0	-	0	-
Ability impaired drugs	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	2	18.2%	2	12.5%	1	4.8%	3	16.7%	0	-	1	12.5%	2	10.5%
No apparent (vehicle) defect	4	36.4%	5	31.3%	11	52.4%	7	38.9%	11	50.0%	4	50.0%	8	42.1%
Any At-fault Vehicle Defect	0	-	0	-	0	-	0	-	1	4.5%	0	-	0	-
Defective brakes	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective steering	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective headlights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective suspension/wheels	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective tires	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Tow hitch/yoke defective	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	0	-	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	0	-	1	4.5%	0	-	0	-
Load shifted/spilled	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Any At-fault Environmental Condition	1	9.1%	0	-	2	9.5%	4	22.2%	6	27.3%	0	-	2	10.5%
Animal action - Wild	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Animal action - Domestic	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Slippery road surface	1	9.1%	0	-	2	9.5%	3	16.7%	4	18.2%	0	-	2	10.5%
Snow drift	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Obstruction/debris on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
View obstructed/limited	0	-	0	-	0	-	0	-	2	9.1%	0	-	0	-
Glare/reflection	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Construction zone	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective driving surface	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Shoulders defective	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Lane markings inadequate	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective/inoperative traffic control device	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Weather	0	-	0	-	0	-	1	5.6%	0	-	0	-	0	-
Pedestrian corridor in use	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Uninvolved vehicle	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Uninvolved pedestrian	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Presence of prior accident	0	-	0	-	0	-	0	-	0	-	0	-	0	-
No contributing factor(s) identified	0	-	3	18.8%	2	9.5%	1	5.6%	2	9.1%	0	-	5	26.3%
Not applicable/Not stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	11	100%	16	100%	21	100%	18	100%	22	100%	8	100%	19	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-3a Drivers Involved in Fatal Collisions by Contributing Factors and Age Group for Previous Five Years

Table 9-3a

Drivers Involved in Fatal Collisions by Contributing Factors and Age Group: 2004-2008 Average

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	2	10.0%	3	13.6%	6	25.7%	6	23.0%	8	42.2%	5	34.8%	3	21.3%
Driver Action - Driving properly	0	0.9%	0	1.8%	1	5.3%	2	7.1%	0	2.2%	0	-	1	6.7%
Any At-fault Driver Action	9	39.1%	13	59.1%	12	51.3%	11	43.7%	6	34.4%	5	39.1%	9	58.7%
Following too closely	0	-	0	1.8%	0	0.9%	0	0.8%	0	-	0	-	0	1.3%
Turning improperly	0	-	0	0.9%	0	0.9%	0	-	0	2.2%	0	2.9%	1	4.0%
Passing improperly	0	0.9%	0	0.9%	0	1.8%	1	2.4%	0	2.2%	0	1.4%	1	4.0%
Changing lanes improperly	0	-	0	-	0	-	0	0.8%	0	-	0	-	0	1.3%
Fail to yield right-of-way	1	2.7%	1	4.5%	0	0.9%	1	2.4%	1	4.4%	0	1.4%	2	12.0%
Disobey traffic control device/officer	0	0.9%	0	1.8%	0	1.8%	1	4.0%	0	1.1%	0	1.4%	1	8.0%
Drive wrong way on roadway	0	1.8%	1	4.5%	1	3.5%	0	0.8%	0	1.1%	0	1.4%	0	2.7%
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Back unsafely	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Parking improperly	0	-	0	-	0	0.9%	0	-	0	-	0	2.9%	0	-
Careless Driving	1	6.4%	2	9.1%	2	8.8%	1	5.6%	2	8.9%	0	2.9%	0	1.3%
Lost control/Drive off road	3	11.8%	3	14.5%	3	13.3%	3	13.5%	2	10.0%	1	8.7%	2	10.7%
Driverless vehicle ran out of control	0	-	0	0.9%	0	-	0	-	0	-	0	-	0	-
Leave stop sign before safe to do so	0	-	0	0.9%	0	0.9%	0	0.8%	0	-	0	1.4%	0	2.7%
Failed to signal	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Take avoiding action	0	1.8%	1	3.6%	1	2.7%	0	1.6%	0	1.1%	1	4.3%	0	-
Driver inexperience	2	10.0%	1	2.7%	0	1.8%	0	1.6%	0	1.1%	0	-	0	-
Pedestrian error/confusion	0	0.9%	1	4.5%	0	0.9%	1	3.2%	0	2.2%	0	2.9%	1	5.3%
NET Speed	4	18.2%	5	24.5%	5	21.2%	4	15.1%	2	11.1%	1	10.1%	1	6.7%
Exceeding speed limit	2	8.2%	4	17.3%	1	4.4%	1	5.6%	0	1.1%	0	2.9%	0	-
Driving too fast for conditions	1	5.5%	1	6.4%	3	12.4%	2	7.1%	1	5.6%	1	5.8%	1	5.3%
Unsafe operating speed (Too fast or too slow)	1	4.5%	1	5.5%	1	5.3%	1	2.4%	1	4.4%	1	4.3%	0	1.3%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	2	10.9%	3	12.7%	3	13.3%	2	7.9%	2	10.0%	3	23.2%	3	21.3%
Any At-fault Human Condition	5	20.9%	9	40.9%	10	43.4%	9	34.9%	4	21.1%	2	17.4%	4	28.0%
Loss of consciousness/Blackout prior to collision	0	-	0	0.9%	0	-	1	4.0%	0	1.1%	0	-	0	2.7%
Extreme fatigue/Fell asleep	0	-	0	0.9%	1	3.5%	1	2.4%	1	3.3%	0	-	0	1.3%
Defective eyesight	0	-	0	-	0	-	0	-	0	-	0	-	1	4.0%
Defective hearing	0	-	0	-	0	-	0	0.8%	0	-	0	-	0	1.3%
Medical disability	0	-	0	-	0	-	0	-	0	-	0	-	0	2.7%
Physical disability	0	-	0	-	0	-	0	-	0	-	0	1.4%	0	-
Mental disability	0	-	0	-	0	-	0	-	0	1.1%	0	-	0	1.3%
Mental confusion/Inability to remember	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Sudden illness	0	-	0	-	0	-	0	-	0	1.1%	0	1.4%	0	1.3%
Distraction/Inattention	1	5.5%	2	8.2%	2	8.0%	2	7.1%	0	2.2%	1	4.3%	2	12.0%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NET Impaired	3	15.5%	7	32.7%	7	31.9%	6	23.8%	2	12.2%	1	10.1%	0	2.7%
Ability impaired alcohol	2	9.1%	4	16.4%	4	16.8%	3	13.5%	1	5.6%	1	10.1%	0	-
Ability impaired drugs	1	2.7%	1	2.7%	0	0.9%	1	2.4%	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	1	6.4%	4	17.3%	3	15.0%	3	11.1%	1	6.7%	0	-	0	2.7%
No apparent (vehicle) defect	6	27.3%	8	38.2%	12	52.2%	10	40.5%	12	65.6%	8	59.4%	8	50.7%
Any At-fault Vehicle Defect	0	1.8%	0	-	0	1.8%	1	4.8%	0	1.1%	0	2.9%	0	-
Defective brakes	0	0.9%	0	-	0	0.9%	0	-	0	-	0	-	0	-
Defective steering	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective headlights	0	-	0	-	0	0.9%	0	1.6%	0	1.1%	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective suspension/wheels	0	-	0	-	0	-	0	0.8%	0	-	0	-	0	-
Defective tires	0	0.9%	0	-	0	-	0	1.6%	0	-	0	-	0	-
Tow hitch/yoke defective	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	0.8%	0	-	0	-	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	0	-	0	-	0	-	0	-	0	1.4%	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Load shifted/spilled	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	0	-	0	1.4%	0	-
Hydroplaning tires	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Any At-fault Environmental Condition	2	8.2%	3	12.7%	3	12.4%	5	19.0%	2	12.2%	2	14.5%	2	10.7%
Animal action - Wild	0	0.9%	0	-	0	-	0	0.8%	0	-	0	1.4%	0	-
Animal action - Domestic	0	0.9%	0	0.9%	0	-	0	-	0	-	0	1.4%	0	-
Slippery road surface	1	4.5%	1	5.5%	2	8.8%	3	11.1%	1	7.8%	1	8.7%	1	5.3%
Snow drift	0	-	0	-	0	0.9%	0	0.8%	0	-	0	-	0	-
Obstruction/debris on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	1.3%
View obstructed/limited	0	0.9%	0	1.8%	0	-	1	3.2%	1	3.3%	0	1.4%	0	1.3%
Glare/reflection	0	0.9%	0	0.9%	0	-	0	1.6%	0	-	0	-	0	1.3%
Construction zone	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective driving surface	0	-	0	-	0	0.9%	0	-	0	1.1%	0	-	0	-
Shoulders defective	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Lane markings inadequate	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective/inoperative traffic control device	0	-	0	0.9%	0	-	0	-	0	-	0	-	0	-
Weather	0	-	1	3.6%	1	2.7%	1	3.2%	0	-	0	2.9%	0	1.3%
Pedestrian corridor in use	0	-	0	-	0	-	0	0.8%	0	-	0	-	0	-
Uninvolved vehicle	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Uninvolved pedestrian	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Presence of prior accident	0	-	0	0.9%	0	-	0	-	0	-	0	-	0	-
No contributing factor(s) identified	2	10.9%	4	18.2%	4	15.9%	4	14.3%	4	22.2%	2	17.4%	3	20.0%
Not applicable/Not stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	22	100%	22	100%	23	100%	25	100%	18	100%	14	100%	15	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-4 Drivers Involved in Injury Collisions by Contributing Factors and Age Group

Table 9-4
Drivers Involved in Injury Collisions by Contributing Factors and Age Group: 2009

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	188	24.4%	308	31.8%	531	38.8%	614	42.1%	582	39.9%	358	40.2%	232	37.1%
Driver Action - Driving properly	47	6.1%	54	5.6%	80	5.9%	82	5.6%	111	7.6%	77	8.6%	47	7.5%
Any At-fault Driver Action	301	39.1%	302	31.1%	296	21.7%	268	18.4%	259	17.7%	154	17.3%	137	21.9%
Following too closely	37	4.8%	40	4.1%	40	2.9%	37	2.5%	24	1.6%	15	1.7%	15	2.4%
Turning improperly	17	2.2%	17	1.8%	15	1.1%	20	1.4%	19	1.3%	14	1.6%	11	1.8%
Passing improperly	2	0.3%	1	0.1%	3	0.2%	4	0.3%	3	0.2%	1	0.1%	3	0.5%
Changing lanes improperly	4	0.5%	8	0.8%	12	0.9%	7	0.5%	3	0.2%	4	0.4%	1	0.2%
Fail to yield right-of-way	40	5.2%	32	3.3%	47	3.4%	27	1.8%	40	2.7%	35	3.9%	29	4.6%
Disobey traffic control device/officer	17	2.2%	27	2.8%	22	1.6%	25	1.7%	25	1.7%	12	1.3%	18	2.9%
Drive wrong way on roadway	2	0.3%	1	0.1%	1	<0.1%	0	-	1	<0.1%	2	0.2%	0	-
Passing a vehicle at pedestrian X-walk	1	0.1%	0	-	1	<0.1%	0	-	0	-	0	-	0	-
Back unsafely	1	0.1%	2	0.2%	0	-	9	0.6%	3	0.2%	2	0.2%	3	0.5%
Parking improperly	0	-	0	-	0	-	2	0.1%	1	<0.1%	0	-	0	-
Careless Driving	33	4.3%	44	4.5%	39	2.9%	33	2.3%	22	1.5%	22	2.5%	7	1.1%
Lost control/Drive off road	67	8.7%	64	6.6%	66	4.8%	48	3.3%	47	3.2%	27	3.0%	22	3.5%
Driverless vehicle ran out of control	0	-	0	-	1	<0.1%	0	-	1	<0.1%	0	-	0	-
Leave stop sign before safe to do so	14	1.8%	9	0.9%	9	0.7%	9	0.6%	18	1.2%	5	0.6%	20	3.2%
Failed to signal	1	0.1%	0	-	2	0.1%	1	<0.1%	1	<0.1%	0	-	0	-
Take avoiding action	11	1.4%	9	0.9%	17	1.2%	23	1.6%	22	1.5%	8	0.9%	3	0.5%
Driver inexperience	55	7.2%	18	1.9%	0	-	6	0.4%	2	0.1%	1	0.1%	0	-
Pedestrian error/confusion	6	0.8%	9	0.9%	10	0.7%	5	0.3%	9	0.6%	3	0.3%	3	0.5%
NET Speed	87	11.3%	75	7.7%	68	5.0%	61	4.2%	60	4.1%	32	3.6%	14	2.2%
Exceeding speed limit	15	2.0%	9	0.9%	4	0.3%	2	0.1%	4	0.3%	1	0.1%	1	0.2%
Driving too fast for conditions	40	5.2%	48	4.9%	33	2.4%	35	2.4%	33	2.3%	16	1.8%	4	0.6%
Unsafe operating speed (Too fast or too slow)	35	4.6%	20	2.1%	35	2.6%	24	1.6%	24	1.6%	15	1.7%	9	1.4%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	159	20.7%	177	18.2%	207	15.1%	236	16.2%	234	16.0%	132	14.8%	106	17.0%
Any At-fault Human Condition	83	10.8%	101	10.4%	88	6.4%	76	5.2%	72	4.9%	31	3.5%	47	7.5%
Loss of consciousness/Blackout prior to collision	1	0.1%	1	0.1%	4	0.3%	3	0.2%	4	0.3%	1	0.1%	2	0.3%
Extreme fatigue/Fell asleep	11	1.4%	7	0.7%	9	0.7%	8	0.5%	4	0.3%	1	0.1%	4	0.6%
Defective eyesight	0	-	0	-	0	-	1	<0.1%	1	<0.1%	0	-	2	0.3%
Defective hearing	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Medical disability	0	-	0	-	4	0.3%	1	<0.1%	3	0.2%	1	0.1%	3	0.5%
Physical disability	1	0.1%	1	0.1%	0	-	2	0.1%	0	-	0	-	3	0.5%
Mental disability	0	-	0	-	0	-	1	<0.1%	0	-	0	-	1	0.2%
Mental confusion/Inability to remember	0	-	0	-	1	<0.1%	0	-	2	0.1%	1	0.1%	4	0.6%
Sudden illness	1	0.1%	0	-	1	<0.1%	0	-	2	0.1%	0	-	1	0.2%
Distraction/Inattention	46	6.0%	53	5.5%	46	3.4%	35	2.4%	42	2.9%	21	2.4%	29	4.6%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	1	0.1%	0	-
NET Impaired	25	3.3%	41	4.2%	29	2.1%	29	2.0%	17	1.2%	6	0.7%	2	0.3%
Ability impaired alcohol	20	2.6%	22	2.3%	19	1.4%	18	1.2%	15	1.0%	5	0.6%	2	0.3%
Ability impaired drugs	0	-	1	0.1%	1	<0.1%	0	-	1	<0.1%	0	-	1	0.2%
Had been drinking/Suspected alcohol use	7	0.9%	20	2.1%	11	0.8%	12	0.8%	4	0.3%	1	0.1%	0	-
No apparent (vehicle) defect	341	44.3%	479	49.4%	714	52.2%	778	53.3%	743	50.9%	439	49.3%	338	54.1%
Any At-fault Vehicle Defect	18	2.3%	4	0.4%	10	0.7%	7	0.5%	10	0.7%	11	1.2%	3	0.5%
Defective brakes	3	0.4%	1	0.1%	3	0.2%	4	0.3%	4	0.3%	2	0.2%	1	0.2%
Defective steering	3	0.4%	0	-	1	<0.1%	0	-	1	<0.1%	0	-	0	-
Defective headlights	1	0.1%	0	-	1	<0.1%	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective engine controls/drive train	1	0.1%	0	-	0	-	0	-	2	0.1%	1	0.1%	0	-
Defective suspension/wheels	1	0.1%	0	-	0	-	1	<0.1%	1	<0.1%	0	-	0	-
Defective tires	2	0.3%	2	0.2%	2	0.1%	0	-	0	-	3	0.3%	1	0.2%
Tow hitch/yoke defective	0	-	0	-	2	0.1%	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	1	0.1%	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	1	0.1%	0	-	2	0.1%	1	<0.1%	2	0.1%	2	0.2%	0	-
Defective glazing (obscured windows)	2	0.3%	1	0.1%	0	-	1	<0.1%	0	-	1	0.1%	1	0.2%
Vehicle modifications	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Load shifted/spilled	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Jack-knife/trailer swing	1	0.1%	0	-	0	-	0	-	0	-	0	-	0	-
Hydroplaning tires	3	0.4%	0	-	0	-	0	-	0	-	1	0.1%	0	-
Any At-fault Environmental Condition	99	12.9%	126	13.0%	125	9.1%	151	10.3%	146	10.0%	90	10.1%	35	5.6%
Animal action - Wild	25	3.3%	27	2.8%	18	1.3%	44	3.0%	43	2.9%	28	3.1%	7	1.1%
Animal action - Domestic	1	0.1%	1	0.1%	2	0.1%	5	0.3%	8	0.5%	2	0.2%	0	-
Slippery road surface	39	5.1%	65	6.7%	69	5.0%	69	4.7%	61	4.2%	42	4.7%	14	2.2%
Snow drift	2	0.3%	0	-	2	0.1%	2	0.1%	2	0.1%	1	0.1%	1	0.2%
Obstruction/debris on roadway	0	-	1	0.1%	3	0.2%	1	<0.1%	2	0.1%	2	0.2%	1	0.2%
View obstructed/limited	7	0.9%	11	1.1%	9	0.7%	12	0.8%	8	0.5%	4	0.4%	4	0.6%
Glare/reflection	3	0.4%	2	0.2%	1	<0.1%	3	0.2%	2	0.1%	1	0.1%	3	0.5%
Construction zone	0	-	2	0.2%	1	<0.1%	2	0.1%	1	<0.1%	1	0.1%	1	0.2%
Defective driving surface	15	2.0%	5	0.5%	7	0.5%	3	0.2%	3	0.2%	3	0.3%	1	0.2%
Shoulders defective	0	-	1	0.1%	0	-	1	<0.1%	1	<0.1%	0	-	0	-
Lane markings inadequate	1	0.1%	0	-	0	-	0	-	0	-	0	-	1	0.2%
Defective/inoperative traffic control device	2	0.3%	2	0.2%	2	0.1%	0	-	0	-	0	-	0	-
Weather	5	0.7%	15	1.5%	11	0.8%	10	0.7%	15	1.0%	14	1.6%	3	0.5%
Pedestrian corridor in use	1	0.1%	3	0.3%	3	0.2%	2	0.1%	1	<0.1%	1	0.1%	0	-
Uninvolved vehicle	1	0.1%	1	0.1%	2	0.1%	2	0.1%	4	0.3%	2	0.2%	0	-
Uninvolved pedestrian	1	0.1%	1	0.1%	2	0.1%	2	0.1%	2	0.1%	0	-	0	-
Presence of prior accident	0	-	0	-	1	<0.1%	3	0.2%	1	<0.1%	2	0.2%	0	-
No contributing factor(s) identified	161	20.9%	227	23.4%	385	28.2%	360	24.7%	375	25.7%	225	25.3%	173	27.7%
Not applicable/Not stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	769	100%	970	100%	1,367	100%	1,460	100%	1,460	100%	891	100.0%	625	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-4a Drivers Involved in Injury Collisions by Contributing Factors and Age Group for Previous Five Years

Table 9-4a

Drivers Involved in Injury Collisions by Contributing Factors and Age Group: 2004-2008 Average

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	262	27.5%	402	35.8%	716	42.3%	842	45.4%	731	45.3%	447	45.9%	264	37.4%
Driver Action - Driving properly	38	3.9%	54	4.8%	79	4.7%	101	5.4%	92	5.7%	54	5.5%	37	5.2%
Any At-fault Driver Action	366	38.4%	325	29.0%	370	21.8%	347	18.7%	277	17.2%	172	17.6%	185	26.2%
Following too closely	37	3.9%	35	3.1%	46	2.7%	44	2.4%	40	2.5%	20	2.1%	19	2.7%
Turning improperly	19	2.0%	18	1.6%	20	1.2%	19	1.0%	18	1.1%	14	1.4%	18	2.5%
Passing improperly	5	0.5%	3	0.3%	5	0.3%	3	0.2%	5	0.3%	2	0.2%	3	0.5%
Changing lanes improperly	5	0.5%	6	0.6%	5	0.3%	7	0.4%	6	0.4%	3	0.3%	3	0.4%
Fail to yield right-of-way	45	4.7%	49	4.4%	57	3.4%	68	3.7%	52	3.2%	41	4.2%	47	6.6%
Disobey traffic control device/officer	23	2.4%	30	2.7%	35	2.1%	29	1.6%	22	1.4%	14	1.4%	23	3.2%
Drive wrong way on roadway	2	0.2%	2	0.2%	3	0.2%	3	0.2%	2	<0.1%	1	<0.1%	2	0.2%
Passing a vehicle at pedestrian X-walk	1	0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	-	0	<0.1%
Back unsafely	4	0.4%	4	0.3%	5	0.3%	5	0.3%	4	0.2%	4	0.4%	2	0.3%
Parking improperly	0	<0.1%	1	<0.1%	0	-	2	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%
Careless Driving	36	3.8%	31	2.7%	31	1.9%	27	1.4%	22	1.4%	12	1.3%	12	1.6%
Lost control/Drive off road	62	6.5%	48	4.3%	55	3.2%	44	2.4%	37	2.3%	21	2.2%	19	2.6%
Driverless vehicle ran out of control	1	<0.1%	0	-	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%
Leave stop sign before safe to do so	12	1.3%	13	1.2%	20	1.2%	16	0.9%	16	1.0%	9	0.9%	23	3.3%
Failed to signal	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%
Take avoiding action	16	1.7%	16	1.4%	20	1.2%	20	1.1%	15	0.9%	13	1.4%	3	0.4%
Driver inexperience	81	8.5%	16	1.5%	12	0.7%	7	0.4%	2	0.1%	1	0.1%	1	0.2%
Pedestrian error/confusion	12	1.3%	8	0.7%	10	0.6%	9	0.5%	9	0.5%	4	0.4%	6	0.8%
NET Speed	93	9.8%	88	7.9%	91	5.4%	72	3.9%	48	3.0%	29	3.0%	16	2.2%
Exceeding speed limit	15	1.5%	15	1.4%	9	0.5%	6	0.3%	4	0.2%	1	0.1%	0	<0.1%
Driving too fast for conditions	63	6.7%	63	5.6%	71	4.2%	58	3.1%	41	2.5%	23	2.4%	13	1.9%
Unsafe operating speed	18	1.8%	13	1.1%	13	0.8%	10	0.5%	4	0.2%	5	0.5%	2	0.3%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	214	22.4%	220	19.7%	283	16.7%	299	16.1%	260	16.1%	165	17.0%	140	19.8%
Any At-fault Human Condition	107	11.2%	113	10.0%	119	7.0%	109	5.9%	87	5.4%	54	5.5%	68	9.6%
Loss of consciousness/Blackout prior	3	0.3%	5	0.5%	2	0.1%	5	0.2%	6	0.4%	4	0.4%	5	0.7%
Extreme fatigue/Fell asleep	11	1.1%	11	1.0%	8	0.5%	6	0.3%	4	0.3%	3	0.3%	4	0.6%
Defective eyesight	0	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	2	0.3%
Defective hearing	0	-	0	<0.1%	0	<0.1%	0	-	0	-	0	<0.1%	1	<0.1%
Medical disability	1	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	0.1%	3	0.4%
Physical disability	0	<0.1%	0	-	1	<0.1%	0	-	2	<0.1%	0	<0.1%	1	0.1%
Mental disability	0	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	0.1%
Mental confusion/Inability to remember	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	2	0.1%	2	0.2%	6	0.8%
Sudden illness	1	<0.1%	0	<0.1%	0	-	2	<0.1%	1	<0.1%	2	0.2%	1	0.1%
Distraction/Inattention	68	7.1%	61	5.5%	73	4.3%	64	3.4%	53	3.3%	34	3.5%	44	6.2%
Exceed hours of service (commercial drivers)	0	-	0	-	0	-	0	<0.1%	0	-	0	<0.1%	0	-
NET Impaired	25	2.6%	36	3.2%	37	2.2%	34	1.8%	20	1.2%	9	0.9%	4	0.5%
Ability impaired alcohol	15	1.6%	21	1.9%	25	1.5%	25	1.4%	13	0.8%	6	0.6%	3	0.4%
Ability impaired drugs	1	0.1%	1	0.1%	2	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%	0	-
Had been drinking/Suspected alcohol use	10	1.1%	16	1.4%	13	0.8%	10	0.5%	7	0.4%	3	0.3%	1	0.2%
No apparent (vehicle) defect	469	49.2%	611	54.6%	957	56.5%	1,086	58.5%	937	58.1%	581	59.7%	407	57.7%
Any At-fault Vehicle Defect	10	1.1%	11	1.0%	14	0.8%	12	0.7%	10	0.6%	4	0.4%	5	0.7%
Defective brakes	4	0.4%	3	0.3%	3	0.2%	3	0.1%	2	<0.1%	1	<0.1%	2	0.3%
Defective steering	0	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	0	-	1	<0.1%
Defective headlights	0	<0.1%	0	<0.1%	1	<0.1%	0	-	0	<0.1%	0	<0.1%	0	-
Defective brake lights	0	<0.1%	0	-	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	-
Defective lighting (unspecified)	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%
Defective engine controls/drive train	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%
Defective suspension/wheels	1	<0.1%	1	0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	-
Defective tires	3	0.3%	3	0.2%	2	0.1%	2	0.1%	3	0.2%	1	<0.1%	0	<0.1%
Tow hitch/yoke defective	0	-	0	-	0	<0.1%	0	<0.1%	0	<0.1%	0	-	0	<0.1%
Defective exhaust system	0	<0.1%	0	<0.1%	0	-	0	<0.1%	0	-	0	-	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door opened	0	-	0	-	0	<0.1%	0	<0.1%	1	<0.1%	0	<0.1%	0	-
Defective glazing (obscured)	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	-	0	<0.1%
Vehicle modifications	0	-	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	-	0	-
Fire	0	<0.1%	0	-	0	<0.1%	0	-	0	-	0	-	0	<0.1%
Overloaded/oversized	0	-	0	<0.1%	0	-	0	-	0	<0.1%	0	<0.1%	0	-
Load shifted/spilled	0	<0.1%	0	<0.1%	0	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%
Jack-knife/trailer swing	0	-	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	-
Hydroplaning tires	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	-
Any At-fault Environmental Condition	142	14.9%	132	11.7%	195	11.5%	198	10.7%	168	10.4%	95	9.8%	62	8.8%
Animal action - Wild	29	3.0%	25	2.2%	37	2.2%	45	2.4%	35	2.2%	23	2.3%	8	1.1%
Animal action - Domestic	4	0.4%	3	0.3%	4	0.2%	5	0.2%	4	0.2%	2	0.2%	1	0.2%
Slippery road surface	65	6.8%	67	6.0%	104	6.2%	102	5.5%	86	5.3%	41	4.2%	29	4.1%
Snow drift	5	0.6%	5	0.4%	6	0.3%	8	0.4%	4	0.3%	2	0.2%	2	0.3%
Obstruction/debris on roadway	2	0.3%	4	0.4%	4	0.2%	3	0.2%	3	0.2%	2	0.2%	1	0.2%
View obstructed/limited	10	1.0%	9	0.8%	12	0.7%	13	0.7%	14	0.8%	9	0.9%	9	1.3%
Glare/reflection	4	0.4%	4	0.3%	4	0.2%	4	0.2%	3	0.2%	3	0.3%	3	0.5%
Construction zone	1	<0.1%	2	0.1%	1	<0.1%	2	<0.1%	2	0.1%	2	0.2%	1	<0.1%
Defective driving surface	14	1.4%	6	0.5%	11	0.6%	5	0.3%	6	0.4%	5	0.5%	2	0.3%
Shoulders defective	1	0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%
Lane markings inadequate	1	<0.1%	0	-	0	<0.1%	0	<0.1%	0	-	0	<0.1%	0	-
Defective/inoperative traffic control	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Weather	11	1.1%	11	1.0%	19	1.1%	16	0.9%	13	0.8%	9	0.9%	6	0.9%
Pedestrian corridor in use	2	0.2%	2	0.2%	2	0.1%	2	0.1%	3	0.2%	2	0.2%	2	0.2%
Uninvolved vehicle	4	0.4%	4	0.3%	4	0.2%	4	0.2%	5	0.3%	3	0.3%	1	0.2%
Uninvolved pedestrian	1	0.1%	0	<0.1%	2	0.1%	2	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Presence of prior accident	1	0.1%	1	<0.1%	2	0.1%	3	0.2%	2	<0.1%	1	<0.1%	1	<0.1%
No contributing factor(s) identified	217	22.8%	263	23.4%	403	23.8%	428	23.1%	390	24.2%	225	23.1%	177	25.2%
Not applicable/Not stated	0	-	0	-	0	-	0	<0.1%	0	-	0	-	0	<0.1%
Total	953	100%	1,120	100%	1,693	100%	1,856	100%	1,612	100%	975	100%	705	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-4a have been truncated to allow for formatting to fit this page.

Table 9-5 Drivers Involved in PDO Collisions by Contributing Factors and Age Group

Table 9-5

Drivers Involved in PDO Collisions by Contributing Factors and Age Group: 2009

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	785	28.5%	1,018	33.0%	1,576	35.9%	1,728	37.8%	1,844	38.2%	1,250	38.1%	879	33.9%
Driver Action - Driving properly	141	5.1%	197	6.4%	292	6.6%	344	7.5%	383	7.9%	259	7.9%	193	7.4%
Any At-fault Driver Action	801	29.0%	688	22.3%	819	18.6%	741	16.2%	660	13.7%	428	13.0%	503	19.4%
Following too closely	96	3.5%	111	3.6%	134	3.0%	114	2.5%	115	2.4%	73	2.2%	54	2.1%
Turning improperly	44	1.6%	50	1.6%	52	1.2%	49	1.1%	59	1.2%	42	1.3%	54	2.1%
Passing improperly	10	0.4%	8	0.3%	20	0.5%	13	0.3%	19	0.4%	4	0.1%	15	0.6%
Changing lanes improperly	31	1.1%	32	1.0%	35	0.8%	47	1.0%	37	0.8%	31	0.9%	22	0.8%
Fail to yield right-of-way	100	3.6%	75	2.4%	117	2.7%	103	2.3%	103	2.1%	73	2.2%	126	4.9%
Disobey traffic control device/officer	38	1.4%	39	1.3%	34	0.8%	39	0.9%	35	0.7%	20	0.6%	31	1.2%
Drive wrong way on roadway	1	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	4	<0.1%	2	<0.1%	1	<0.1%
Passing a vehicle at pedestrian X-walk	0	-	0	-	1	<0.1%	0	-	0	-	0	-	0	-
Back unsafely	48	1.7%	32	1.0%	56	1.3%	81	1.8%	72	1.5%	54	1.6%	56	2.2%
Parking improperly	2	<0.1%	1	<0.1%	5	0.1%	7	0.2%	6	0.1%	8	0.2%	7	0.3%
Careless Driving	58	2.1%	52	1.7%	63	1.4%	50	1.1%	45	0.9%	23	0.7%	29	1.1%
Lost control/Drive off road	94	3.4%	90	2.9%	82	1.9%	68	1.5%	53	1.1%	33	1.0%	37	1.4%
Driverless vehicle ran out of control	1	<0.1%	1	<0.1%	2	<0.1%	0	-	0	-	0	-	1	<0.1%
Leave stop sign before safe to do so	25	0.9%	19	0.6%	16	0.4%	34	0.7%	16	0.3%	14	0.4%	27	1.0%
Failed to signal	1	<0.1%	0	-	5	0.1%	1	<0.1%	0	-	2	<0.1%	0	-
Take avoiding action	44	1.6%	44	1.4%	60	1.4%	64	1.4%	45	0.9%	29	0.9%	29	1.1%
Driver inexperience	140	5.1%	31	1.0%	28	0.6%	18	0.4%	6	0.1%	2	<0.1%	4	0.2%
Pedestrian error/confusion	1	<0.1%	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%
NET Speed	186	6.7%	175	5.7%	191	4.3%	132	2.9%	111	2.3%	44	1.3%	55	2.1%
Exceeding speed limit	19	0.7%	12	0.4%	14	0.3%	5	0.1%	3	<0.1%	0	-	3	0.1%
Driving too fast for conditions	152	5.5%	144	4.7%	165	3.8%	122	2.7%	99	2.1%	42	1.3%	39	1.5%
Unsafe operating speed	24	0.9%	22	0.7%	15	0.3%	6	0.1%	12	0.2%	2	<0.1%	13	0.5%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	628	22.8%	607	19.7%	775	17.6%	731	16.0%	784	16.2%	531	16.2%	455	17.5%
Any At-fault Human Condition	176	6.4%	167	5.4%	178	4.0%	143	3.1%	121	2.5%	92	2.8%	107	4.1%
Loss of consciousness/Blackout prior	2	<0.1%	3	<0.1%	4	<0.1%	1	<0.1%	0	-	3	<0.1%	3	0.1%
Extreme fatigue/Fell asleep	14	0.5%	8	0.3%	4	<0.1%	7	0.2%	5	0.1%	8	0.2%	4	0.2%
Defective eyesight	2	<0.1%	1	<0.1%	0	-	0	-	1	<0.1%	0	-	7	0.3%
Defective hearing	0	-	0	-	0	-	2	<0.1%	0	-	0	-	0	-
Medical disability	0	-	1	<0.1%	1	<0.1%	0	-	4	<0.1%	1	<0.1%	4	0.2%
Physical disability	0	-	0	-	1	<0.1%	1	<0.1%	2	<0.1%	0	-	4	0.2%
Mental disability	0	-	0	-	1	<0.1%	0	-	0	-	1	<0.1%	1	<0.1%
Mental confusion/Inability to remember	0	-	2	<0.1%	4	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	6	0.2%
Sudden illness	1	<0.1%	0	-	0	-	0	-	1	<0.1%	2	<0.1%	4	0.2%
Distraction/Inattention	129	4.7%	111	3.6%	119	2.7%	99	2.2%	83	1.7%	67	2.0%	78	3.0%
Exceed hours of service (commercial)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NET Impaired	31	1.1%	46	1.5%	45	1.0%	34	0.7%	25	0.5%	14	0.4%	1	<0.1%
Ability impaired alcohol	19	0.7%	31	1.0%	33	0.8%	25	0.5%	16	0.3%	9	0.3%	1	<0.1%
Ability impaired drugs	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	3	<0.1%	0	-
Had been drinking/Suspected use	11	0.4%	15	0.5%	12	0.3%	12	0.3%	9	0.2%	4	0.1%	0	-
No apparent (vehicle) defect	1,285	46.6%	1,480	47.9%	2,072	47.1%	2,131	46.6%	2,264	46.9%	1,529	46.5%	1,185	45.7%
Any At-fault Vehicle Defect	18	0.7%	26	0.8%	24	0.5%	25	0.5%	27	0.6%	16	0.5%	5	0.2%
Defective brakes	5	0.2%	4	0.1%	2	<0.1%	5	0.1%	8	0.2%	5	0.2%	0	-
Defective steering	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	0	-
Defective headlights	2	<0.1%	0	-	2	<0.1%	0	-	0	-	0	-	1	<0.1%
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	1	<0.1%	0	-	1	<0.1%	1	<0.1%	2	<0.1%	0	-
Defective engine controls/drive train	2	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%
Defective suspension/wheels	0	-	3	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	-
Defective tires	4	0.1%	4	0.1%	5	0.1%	4	<0.1%	5	0.1%	1	<0.1%	2	<0.1%
Tow hitch/yoke defective	0	-	1	<0.1%	2	<0.1%	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	0	-	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door opened	1	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	3	<0.1%	0	-
Defective glazing (obscured)	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	0	-	0	-
Vehicle modifications	1	<0.1%	1	<0.1%	0	-	0	-	0	-	1	<0.1%	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	1	<0.1%	1	<0.1%	0	-	0	-
Load shifted/spilled	0	-	1	<0.1%	1	<0.1%	3	<0.1%	4	<0.1%	0	-	0	-
Jack-knife/trailer swing	0	-	1	<0.1%	4	<0.1%	1	<0.1%	1	<0.1%	0	-	1	<0.1%
Hydroplaning tires	0	-	1	<0.1%	0	-	1	<0.1%	1	<0.1%	0	-	0	-
Any At-fault Environmental Condition	551	20.0%	590	19.1%	843	19.2%	915	20.0%	1,077	22.3%	637	19.4%	484	18.7%
Animal action - Wild	228	8.3%	278	9.0%	398	9.1%	522	11.4%	713	14.8%	429	13.1%	275	10.6%
Animal action - Domestic	11	0.4%	19	0.6%	23	0.5%	31	0.7%	16	0.3%	15	0.5%	15	0.6%
Slippery road surface	225	8.2%	221	7.2%	332	7.6%	276	6.0%	274	5.7%	135	4.1%	123	4.7%
Snow drift	6	0.2%	11	0.4%	20	0.5%	16	0.4%	14	0.3%	10	0.3%	8	0.3%
Obstruction/debris on roadway	6	0.2%	6	0.2%	11	0.3%	7	0.2%	12	0.2%	7	0.2%	11	0.4%
View obstructed/limited	26	0.9%	23	0.7%	20	0.5%	26	0.6%	28	0.6%	22	0.7%	26	1.0%
Glare/reflection	6	0.2%	5	0.2%	6	0.1%	3	<0.1%	5	0.1%	4	0.1%	9	0.3%
Construction zone	1	<0.1%	7	0.2%	5	0.1%	5	0.1%	1	<0.1%	6	0.2%	4	0.2%
Defective driving surface	37	1.3%	13	0.4%	19	0.4%	15	0.3%	14	0.3%	6	0.2%	5	0.2%
Shoulders defective	2	<0.1%	5	0.2%	1	<0.1%	1	<0.1%	6	0.1%	0	-	0	-
Lane markings inadequate	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	0	-	0	-
Defective/inoperative traffic control	2	<0.1%	0	-	1	<0.1%	0	-	2	<0.1%	1	<0.1%	0	-
Weather	18	0.7%	25	0.8%	31	0.7%	25	0.5%	29	0.6%	11	0.3%	9	0.3%
Pedestrian corridor in use	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Uninvolved vehicle	3	0.1%	6	0.2%	6	0.1%	6	0.1%	5	0.1%	7	0.2%	9	0.3%
Uninvolved pedestrian	1	<0.1%	2	<0.1%	4	<0.1%	3	<0.1%	0	-	1	<0.1%	2	<0.1%
Presence of prior accident	0	-	4	0.1%	1	<0.1%	6	0.1%	6	0.1%	1	<0.1%	2	<0.1%
No contributing factor(s) identified	667	24.2%	834	27.0%	1,283	29.2%	1,244	27.2%	1,292	26.8%	990	30.1%	718	27.7%
Not applicable/Not stated	0	-	0	-	1	<0.1%	0	-	0	-	0	-	0	-
Total	2,758	100%	3,088	100%	4,396	100%	4,570	100%	4,826	100%	3,285	100%	2,593	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-5 have been truncated to allow for formatting to fit this page.

Table 9-5a Drivers Involved in PDO Collisions by Contributing Factors and Age Group for Previous Five Years

Table 9-5a

Drivers Involved in PDO Collisions by Contributing Factors and Age Group: 2004-2008 Average

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	938	29.2%	1,227	36.4%	1,911	39.9%	2,192	41.6%	2,196	42.6%	1,294	38.8%	950	33.7%
Driver Action - Driving properly	152	4.7%	168	5.0%	276	5.8%	315	6.0%	350	6.8%	204	6.1%	161	5.7%
Any At-fault Driver Action	998	31.0%	776	23.0%	872	18.2%	838	15.9%	756	14.7%	536	16.1%	687	24.4%
Following too closely	113	3.5%	94	2.8%	112	2.3%	119	2.3%	100	1.9%	56	1.7%	71	2.5%
Turning improperly	54	1.7%	45	1.3%	54	1.1%	58	1.1%	58	1.1%	48	1.5%	69	2.5%
Passing improperly	13	0.4%	14	0.4%	16	0.3%	12	0.2%	11	0.2%	9	0.3%	12	0.4%
Changing lanes improperly	38	1.2%	32	0.9%	30	0.6%	30	0.6%	33	0.6%	25	0.7%	51	1.8%
Fail to yield right-of-way	112	3.5%	97	2.9%	112	2.3%	117	2.2%	113	2.2%	98	3.0%	136	4.8%
Disobey traffic control device/officer	33	1.0%	37	1.1%	44	0.9%	37	0.7%	36	0.7%	26	0.8%	56	2.0%
Drive wrong way on roadway	2	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	5	0.2%
Passing a vehicle at pedestrian X-walk	0	<0.1%	0	-	0	<0.1%	0	-	0	<0.1%	0	-	0	<0.1%
Back unsafely	93	2.9%	75	2.2%	107	2.2%	135	2.6%	127	2.5%	98	2.9%	118	4.2%
Parking improperly	8	0.2%	6	0.2%	9	0.2%	12	0.2%	13	0.3%	11	0.3%	16	0.6%
Careless Driving	54	1.7%	49	1.4%	53	1.1%	46	0.9%	36	0.7%	28	0.8%	41	1.5%
Lost control/Drive off road	106	3.3%	83	2.5%	87	1.8%	67	1.3%	51	1.0%	33	1.0%	26	0.9%
Driverless vehicle ran out of control	1	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%
Leave stop sign before safe to do so	29	0.9%	20	0.6%	23	0.5%	29	0.5%	24	0.5%	26	0.8%	35	1.3%
Failed to signal	1	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%
Take avoiding action	39	1.2%	40	1.2%	48	1.0%	46	0.9%	43	0.8%	23	0.7%	15	0.5%
Driver inexperience	206	6.4%	43	1.3%	26	0.5%	13	0.2%	10	0.2%	5	0.2%	5	0.2%
Pedestrian error/confusion	1	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	0	<0.1%	2	<0.1%
NET Speed	240	7.5%	202	6.0%	194	4.1%	149	2.8%	125	2.4%	62	1.9%	57	2.0%
Exceeding speed limit	24	0.8%	18	0.5%	12	0.2%	7	0.1%	5	<0.1%	2	<0.1%	4	0.1%
Driving too fast for conditions	195	6.1%	171	5.1%	168	3.5%	134	2.5%	112	2.2%	56	1.7%	48	1.7%
Unsafe operating speed	27	0.8%	18	0.5%	17	0.3%	10	0.2%	9	0.2%	5	0.2%	5	0.2%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	741	23.0%	648	19.2%	852	17.8%	900	17.1%	843	16.4%	564	16.9%	633	22.5%
Any At-fault Human Condition	205	6.4%	201	6.0%	207	4.3%	189	3.6%	169	3.3%	127	3.8%	137	4.9%
Loss of consciousness/Blackout prior to	0	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%
Extreme fatigue/Fell asleep	14	0.4%	14	0.4%	11	0.2%	7	0.1%	8	0.2%	5	0.2%	4	0.1%
Defective eyesight	2	<0.1%	0	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	3	0.1%
Defective hearing	0	-	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	2	<0.1%
Medical disability	0	-	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%
Physical disability	2	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	4	0.2%
Mental disability	0	<0.1%	0	-	0	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%
Mental confusion/Inability to remember	1	<0.1%	2	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%	3	<0.1%	6	0.2%
Sudden illness	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%
Distraction/Inattention	152	4.7%	136	4.0%	142	3.0%	139	2.6%	130	2.5%	98	2.9%	106	3.8%
Exceed hours of service (commercial)	0	<0.1%	0	-	0	-	1	<0.1%	0	-	0	-	0	-
NET Impaired	36	1.1%	50	1.5%	48	1.0%	36	0.7%	27	0.5%	12	0.4%	8	0.3%
Ability impaired alcohol	23	0.7%	30	0.9%	34	0.7%	25	0.5%	20	0.4%	9	0.3%	4	0.2%
Ability impaired drugs	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%
Had been drinking/Suspected use	13	0.4%	20	0.6%	16	0.3%	11	0.2%	8	0.2%	4	0.1%	4	0.1%
No apparent (vehicle) defect	1,516	47.1%	1,704	50.6%	2,452	51.2%	2,743	52.1%	2,653	51.4%	1,648	49.5%	1,444	51.3%
Any At-fault Vehicle Defect	37	1.2%	30	0.9%	41	0.9%	41	0.8%	32	0.6%	21	0.6%	11	0.4%
Defective brakes	9	0.3%	6	0.2%	7	0.1%	9	0.2%	7	0.1%	3	<0.1%	3	<0.1%
Defective steering	2	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%
Defective headlights	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	0	-
Defective brake lights	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	-	0	<0.1%	0	<0.1%
Defective lighting (unspecified)	1	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	-
Defective engine controls/drive train	4	0.1%	2	<0.1%	3	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%
Defective suspension/wheels	2	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%
Defective tires	9	0.3%	6	0.2%	7	0.2%	5	<0.1%	4	<0.1%	2	<0.1%	1	<0.1%
Tow hitch/yoke defective	0	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Defective exhaust system	0	<0.1%	1	<0.1%	0	<0.1%	0	-	0	-	0	-	0	<0.1%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%
Defective glazing (obscured windows)	1	<0.1%	2	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%
Vehicle modifications	4	0.1%	4	0.1%	8	0.2%	5	0.1%	3	<0.1%	2	<0.1%	1	<0.1%
Fire	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%
Overloaded/oversized	0	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	2	<0.1%	0	<0.1%	0	<0.1%
Load shifted/spilled	0	<0.1%	1	<0.1%	2	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%
Jack-knife/trailer swing	1	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	0	<0.1%
Hydroplaning tires	2	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%	0	<0.1%
Any At-fault Environmental Condition	684	21.3%	688	20.4%	991	20.7%	1,140	21.7%	1,160	22.5%	637	19.1%	360	12.8%
Animal action - Wild	267	8.3%	326	9.7%	517	10.8%	674	12.8%	736	14.3%	396	11.9%	195	6.9%
Animal action - Domestic	15	0.5%	18	0.5%	28	0.6%	28	0.5%	22	0.4%	17	0.5%	11	0.4%
Slippery road surface	285	8.9%	256	7.6%	322	6.7%	311	5.9%	274	5.3%	146	4.4%	97	3.5%
Snow drift	23	0.7%	20	0.6%	28	0.6%	24	0.5%	21	0.4%	13	0.4%	6	0.2%
Obstruction/debris on roadway	13	0.4%	15	0.4%	21	0.4%	17	0.3%	20	0.4%	11	0.3%	8	0.3%
View obstructed/limited	32	1.0%	25	0.7%	42	0.9%	50	0.9%	50	1.0%	27	0.8%	26	0.9%
Glare/reflection	4	0.1%	5	0.1%	9	0.2%	8	0.1%	10	0.2%	8	0.2%	5	0.2%
Construction zone	3	0.1%	3	<0.1%	3	<0.1%	5	<0.1%	4	<0.1%	3	0.1%	3	<0.1%
Defective driving surface	28	0.9%	15	0.4%	21	0.4%	20	0.4%	22	0.4%	7	0.2%	5	0.2%
Shoulders defective	2	<0.1%	2	<0.1%	3	<0.1%	4	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%
Lane markings inadequate	0	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%
Defective/inoperative traffic control device	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Weather	29	0.9%	25	0.7%	41	0.9%	40	0.8%	39	0.7%	22	0.7%	13	0.5%
Pedestrian corridor in use	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	-
Uninvolved vehicle	13	0.4%	9	0.3%	11	0.2%	12	0.2%	16	0.3%	9	0.3%	4	0.1%
Uninvolved pedestrian	1	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%	0	<0.1%	1	<0.1%
Presence of prior accident	1	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	4	<0.1%	2	<0.1%	2	<0.1%
No contributing factor(s) identified	816	25.3%	973	28.9%	1,439	30.0%	1,585	30.1%	1,517	29.4%	951	28.6%	1,878	66.6%
Not applicable/Not stated	0	<0.1%	0	-	0	-	0	<0.1%	0	-	0	-	0	-
Total	3,219	100%	3,370	100%	4,789	100%	5,267	100%	5,158	100%	3,331	100%	2,818	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-5a have been truncated to allow for formatting to fit this page.

Table 9-6 Drivers Involved in All Traffic Collisions by Contributing Factors and Age Group

Table 9-6

Drivers Involved in All Collisions by Contributing Factors and Age Group: 2009

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	978	27.6%	1,327	32.6%	2,112	36.5%	2,353	38.9%	2,435	38.6%	1,611	38.5%	1,113	34.4%
Driver Action - Driving properly	188	5.3%	251	6.2%	372	6.4%	427	7.1%	498	7.9%	336	8.0%	240	7.4%
Any At-fault Driver Action	1,109	31.3%	1,001	24.6%	1,131	19.6%	1,015	16.8%	924	14.6%	587	14.0%	651	20.1%
Following too closely	133	3.8%	151	3.7%	174	3.0%	151	2.5%	139	2.2%	89	2.1%	69	2.1%
Turning improperly	61	1.7%	67	1.6%	67	1.2%	69	1.1%	79	1.3%	56	1.3%	66	2.0%
Passing improperly	12	0.3%	9	0.2%	23	0.4%	17	0.3%	22	0.3%	6	0.1%	18	0.6%
Changing lanes improperly	35	1.0%	40	1.0%	47	0.8%	54	0.9%	40	0.6%	35	0.8%	23	0.7%
Fail to yield right-of-way	140	4.0%	107	2.6%	167	2.9%	130	2.1%	143	2.3%	108	2.6%	155	4.8%
Disobey traffic control device/officer	55	1.6%	66	1.6%	56	1.0%	65	1.1%	61	1.0%	32	0.8%	50	1.5%
Drive wrong way on roadway	3	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	5	<0.1%	4	<0.1%	1	<0.1%
Passing a vehicle at pedestrian X-walk	1	<0.1%	0	-	2	<0.1%	0	-	0	-	0	-	0	-
Back unsafely	49	1.4%	34	0.8%	56	1.0%	90	1.5%	75	1.2%	56	1.3%	59	1.8%
Parking improperly	2	<0.1%	1	<0.1%	5	<0.1%	9	0.1%	7	0.1%	8	0.2%	7	0.2%
Careless Driving	94	2.7%	100	2.5%	105	1.8%	85	1.4%	67	1.1%	47	1.1%	37	1.1%
Lost control/Drive off road	165	4.7%	161	4.0%	154	2.7%	118	2.0%	101	1.6%	62	1.5%	64	2.0%
Driverless vehicle ran out of control	1	<0.1%	1	<0.1%	3	<0.1%	0	-	1	<0.1%	0	-	1	<0.1%
Leave stop sign before safe to do so	40	1.1%	29	0.7%	25	0.4%	43	0.7%	35	0.6%	19	0.5%	49	1.5%
Failed to signal	2	<0.1%	0	-	7	0.1%	2	<0.1%	1	<0.1%	2	<0.1%	0	-
Take avoiding action	55	1.6%	53	1.3%	77	1.3%	87	1.4%	69	1.1%	37	0.9%	32	1.0%
Driver inexperience	196	5.5%	49	1.2%	29	0.5%	24	0.4%	8	0.1%	3	<0.1%	4	0.1%
Pedestrian error/confusion	7	0.2%	9	0.2%	10	0.2%	7	0.1%	10	0.2%	5	0.1%	5	0.2%
NET Speed	278	7.9%	253	6.2%	269	4.7%	193	3.2%	171	2.7%	77	1.8%	72	2.2%
Exceeding speed limit	36	1.0%	23	0.6%	23	0.4%	7	0.1%	7	0.1%	1	<0.1%	4	0.1%
Driving too fast for conditions	194	5.5%	193	4.7%	202	3.5%	157	2.6%	132	2.1%	59	1.4%	44	1.4%
Unsafe operating speed	61	1.7%	42	1.0%	51	0.9%	30	0.5%	36	0.6%	17	0.4%	24	0.7%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	787	22.2%	786	19.3%	987	17.1%	967	16.0%	1,022	16.2%	663	15.8%	563	17.4%
Any At-fault Human Condition	263	7.4%	274	6.7%	270	4.7%	224	3.7%	195	3.1%	125	3.0%	161	5.0%
Loss of consciousness/Blackout prior	3	<0.1%	5	0.1%	8	0.1%	4	<0.1%	5	<0.1%	4	<0.1%	7	0.2%
Extreme fatigue/Fell asleep	25	0.7%	15	0.4%	13	0.2%	15	0.2%	9	0.1%	9	0.2%	8	0.2%
Defective eyesight	2	<0.1%	1	<0.1%	0	-	1	<0.1%	2	<0.1%	1	<0.1%	9	0.3%
Defective hearing	0	-	0	-	0	-	2	<0.1%	0	-	0	-	0	-
Medical disability	0	-	1	<0.1%	5	<0.1%	1	<0.1%	7	0.1%	2	<0.1%	7	0.2%
Physical disability	1	<0.1%	1	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	0	-	8	0.2%
Mental disability	0	-	0	-	1	<0.1%	1	<0.1%	0	-	1	<0.1%	2	<0.1%
Mental confusion/Inability to remember	0	-	2	<0.1%	5	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	10	0.3%
Sudden illness	2	<0.1%	0	-	1	<0.1%	0	-	3	<0.1%	2	<0.1%	7	0.2%
Distraction/Inattention	176	5.0%	164	4.0%	165	2.9%	134	2.2%	126	2.0%	88	2.1%	108	3.3%
Exceed hours of service (commercial)	0	-	0	-	0	-	0	-	0	-	1	<0.1%	0	-
NET Impaired	59	1.7%	92	2.3%	78	1.3%	68	1.1%	42	0.7%	21	0.5%	5	0.2%
Ability impaired alcohol	40	1.1%	56	1.4%	55	1.0%	45	0.7%	31	0.5%	14	0.3%	3	<0.1%
Ability impaired drugs	2	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%	1	<0.1%
Had been drinking/Suspected use	20	0.6%	37	0.9%	24	0.4%	27	0.4%	13	0.2%	6	0.1%	2	<0.1%
No apparent (vehicle) defect	1,630	46.1%	1,964	48.2%	2,797	48.4%	2,916	48.2%	3,018	47.8%	1,972	47.1%	1,531	47.3%
Any At-fault Vehicle Defect	36	1.0%	30	0.7%	34	0.6%	32	0.5%	38	0.6%	27	0.6%	8	0.2%
Defective brakes	8	0.2%	5	0.1%	5	<0.1%	9	0.1%	12	0.2%	7	0.2%	1	<0.1%
Defective steering	5	0.1%	3	<0.1%	4	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	0	-
Defective headlights	3	<0.1%	0	-	3	<0.1%	0	-	0	-	0	-	1	<0.1%
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	1	<0.1%	0	-	1	<0.1%	1	<0.1%	2	<0.1%	0	-
Defective engine controls/drive train	3	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%
Defective suspension/wheels	1	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	0	-
Defective tires	6	0.2%	6	0.1%	7	0.1%	4	<0.1%	5	<0.1%	4	<0.1%	3	<0.1%
Tow hitch/yoke defective	0	-	1	<0.1%	4	<0.1%	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	1	<0.1%	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	2	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	4	<0.1%	5	0.1%	0	-
Defective glazing (obscured)	3	<0.1%	2	<0.1%	1	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%
Vehicle modifications	1	<0.1%	1	<0.1%	0	-	0	-	0	-	1	<0.1%	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	1	<0.1%	2	<0.1%	0	-	0	-
Load shifted/spilled	0	-	1	<0.1%	1	<0.1%	3	<0.1%	4	<0.1%	0	-	0	-
Jack-knife/trailer swing	1	<0.1%	1	<0.1%	4	<0.1%	1	<0.1%	1	<0.1%	0	-	1	<0.1%
Hydroplaning tires	3	<0.1%	1	<0.1%	0	-	1	<0.1%	1	<0.1%	1	<0.1%	0	-
Any At-fault Environmental Condition	651	18.4%	716	17.6%	970	16.8%	1,070	17.7%	1,229	19.5%	727	17.4%	521	16.1%
Animal action - Wild	253	7.2%	305	7.5%	416	7.2%	566	9.4%	756	12.0%	457	10.9%	282	8.7%
Animal action - Domestic	12	0.3%	20	0.5%	25	0.4%	36	0.6%	24	0.4%	17	0.4%	15	0.5%
Slippery road surface	265	7.5%	286	7.0%	403	7.0%	348	5.8%	339	5.4%	177	4.2%	139	4.3%
Snow drift	8	0.2%	11	0.3%	22	0.4%	18	0.3%	16	0.3%	11	0.3%	9	0.3%
Obstruction/debris on roadway	6	0.2%	7	0.2%	14	0.2%	8	0.1%	14	0.2%	9	0.2%	12	0.4%
View obstructed/limited	33	0.9%	34	0.8%	29	0.5%	38	0.6%	38	0.6%	26	0.6%	30	0.9%
Glare/reflection	9	0.3%	7	0.2%	7	0.1%	6	<0.1%	7	0.1%	5	0.1%	12	0.4%
Construction zone	1	<0.1%	9	0.2%	6	0.1%	7	0.1%	2	<0.1%	7	0.2%	5	0.2%
Defective driving surface	52	1.5%	18	0.4%	26	0.4%	18	0.3%	17	0.3%	9	0.2%	6	0.2%
Shoulders defective	2	<0.1%	6	0.1%	1	<0.1%	2	<0.1%	7	0.1%	0	-	0	-
Lane markings inadequate	3	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	0	-	1	<0.1%
Defective/inoperative traffic control	4	0.1%	2	<0.1%	3	<0.1%	0	-	2	<0.1%	1	<0.1%	0	-
Weather	23	0.7%	40	1.0%	42	0.7%	36	0.6%	44	0.7%	25	0.6%	12	0.4%
Pedestrian corridor in use	1	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	0	-
Uninvolved vehicle	4	0.1%	7	0.2%	8	0.1%	8	0.1%	9	0.1%	9	0.2%	9	0.3%
Uninvolved pedestrian	2	<0.1%	3	<0.1%	6	0.1%	5	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%
Presence of prior accident	0	-	4	<0.1%	2	<0.1%	9	0.1%	7	0.1%	3	<0.1%	2	<0.1%
No contributing factor(s) identified	828	23.4%	1,064	26.1%	1,670	28.9%	1,605	26.5%	1,669	26.5%	1,215	29.0%	896	27.7%
Not applicable/Not stated	0	-	0	-	1	<0.1%	0	-	0	-	0	-	0	-
Total	3,538	100%	4,074	100%	5,784	100%	6,048	100%	6,308	100%	4,184	100%	3,237	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-6 have been truncated to allow for formatting to fit this page.

Table 9-6a Drivers Involved in All Traffic Collisions by Contributing Factors and Age Group for Previous Five Years

Table 9-6a

Drivers Involved in All Collisions by Contributing Factors and Age Group: 2004-2008 Average

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Driver Action - Driving Properly and Human Condition - Apparently Normal	1,202	28.7%	1,631	36.2%	2,633	40.5%	2,602	36.4%	2,935	43.2%	1,819	42.1%	1,304	36.9%
Driver Action - Driving properly	189	4.5%	222	4.9%	356	5.5%	370	5.2%	442	6.5%	266	6.2%	217	6.1%
Any At-fault Driver Action	1,372	32.8%	1,114	24.7%	1,253	19.3%	1,222	17.1%	1,040	15.3%	704	16.3%	805	22.8%
Following too closely	150	3.6%	129	2.9%	158	2.4%	159	2.2%	140	2.1%	84	1.9%	65	1.8%
Turning improperly	72	1.7%	64	1.4%	74	1.1%	80	1.1%	77	1.1%	57	1.3%	84	2.4%
Passing improperly	18	0.4%	17	0.4%	21	0.3%	17	0.2%	17	0.2%	11	0.3%	13	0.4%
Changing lanes improperly	42	1.0%	38	0.8%	35	0.5%	38	0.5%	39	0.6%	26	0.6%	44	1.2%
Fail to yield right-of-way	157	3.8%	147	3.3%	169	2.6%	178	2.5%	166	2.4%	133	3.1%	178	5.0%
Disobey traffic control device/officer	56	1.3%	68	1.5%	79	1.2%	65	0.9%	58	0.8%	39	0.9%	63	1.8%
Drive wrong way on roadway	5	0.1%	6	0.1%	6	<0.1%	5	<0.1%	3	<0.1%	2	<0.1%	6	0.2%
Passing a vehicle at pedestrian X-walk	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	-	1	<0.1%
Back unsafely	96	2.3%	78	1.7%	112	1.7%	124	1.7%	130	1.9%	100	2.3%	116	3.3%
Parking improperly	8	0.2%	6	0.1%	9	0.1%	13	0.2%	14	0.2%	11	0.3%	17	0.5%
Careless Driving	92	2.2%	81	1.8%	87	1.3%	77	1.1%	60	0.9%	38	0.9%	40	1.1%
Lost control/Drive off road	171	4.1%	134	3.0%	145	2.2%	128	1.8%	90	1.3%	54	1.3%	51	1.4%
Driverless vehicle ran out of control	2	<0.1%	1	<0.1%	3	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%
Leave stop sign before safe to do so	41	1.0%	33	0.7%	43	0.7%	45	0.6%	41	0.6%	30	0.7%	64	1.8%
Failed to signal	1	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%
Take avoiding action	55	1.3%	57	1.3%	69	1.1%	63	0.9%	58	0.8%	40	0.9%	19	0.5%
Driver inexperience	290	6.9%	60	1.3%	38	0.6%	72	1.0%	12	0.2%	7	0.2%	4	0.1%
Pedestrian error/confusion	14	0.3%	11	0.3%	12	0.2%	13	0.2%	11	0.2%	5	0.1%	8	0.2%
NET Speed	338	8.1%	295	6.5%	290	4.5%	240	3.4%	175	2.6%	98	2.3%	64	1.8%
Exceeding speed limit	41	1.0%	37	0.8%	22	0.3%	19	0.3%	9	0.1%	5	0.1%	2	<0.1%
Driving too fast for conditions	260	6.2%	235	5.2%	242	3.7%	199	2.8%	154	2.3%	85	2.0%	56	1.6%
Unsafe operating speed	46	1.1%	32	0.7%	31	0.5%	27	0.4%	14	0.2%	10	0.2%	6	0.2%

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group													
	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Human Condition - Apparently Normal	957	22.9%	871	19.3%	1,138	17.5%	1,153	16.1%	1,105	16.3%	751	17.4%	671	19.0%
Any At-fault Human Condition	316	7.6%	322	7.1%	336	5.2%	302	4.2%	260	3.8%	175	4.1%	218	6.2%
Loss of consciousness/Blackout prior to	3	<0.1%	7	0.2%	4	<0.1%	6	<0.1%	8	0.1%	6	0.1%	8	0.2%
Extreme fatigue/Fell asleep	25	0.6%	25	0.6%	20	0.3%	15	0.2%	13	0.2%	8	0.2%	9	0.2%
Defective eyesight	2	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	6	0.2%
Defective hearing	0	-	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%	3	<0.1%
Medical disability	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%	8	0.2%
Physical disability	2	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	6	0.2%
Mental disability	1	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%
Mental confusion/Inability to remember	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	14	0.4%
Sudden illness	1	<0.1%	1	<0.1%	0	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%
Distraction/Inattention	221	5.3%	199	4.4%	217	3.3%	203	2.8%	184	2.7%	130	3.0%	157	4.4%
Exceed hours of service (commercial)	0	<0.1%	0	-	0	-	1	<0.1%	0	-	0	<0.1%	0	-
NET Impaired	65	1.5%	93	2.1%	92	1.4%	73	1.0%	49	0.7%	23	0.5%	11	0.3%
Ability impaired alcohol	40	1.0%	55	1.2%	63	1.0%	50	0.7%	34	0.5%	17	0.4%	7	0.2%
Ability impaired drugs	3	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Had been drinking/Suspected use	25	0.6%	40	0.9%	32	0.5%	24	0.3%	17	0.2%	7	0.2%	4	0.1%
No apparent (vehicle) defect	1,991	47.6%	2,323	51.5%	3,421	52.6%	3,417	47.8%	3,601	53.0%	2,297	53.2%	1,874	53.0%
Any At-fault Vehicle Defect	48	1.1%	41	0.9%	55	0.8%	51	0.7%	43	0.6%	28	0.6%	17	0.5%
Defective brakes	13	0.3%	9	0.2%	10	0.2%	11	0.2%	9	0.1%	4	<0.1%	4	0.1%
Defective steering	3	<0.1%	3	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%
Defective headlights	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	-
Defective brake lights	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%	0	<0.1%
Defective lighting (unspecified)	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%
Defective engine controls/drive train	4	0.1%	3	<0.1%	5	<0.1%	5	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%
Defective suspension/wheels	3	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%
Defective tires	12	0.3%	8	0.2%	10	0.2%	7	0.1%	7	0.1%	2	<0.1%	2	<0.1%
Tow hitch/yoke defective	0	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%
Defective exhaust system	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	0	-	0	-	0	-

(Continued next page)

(Continued from previous page)

Contributing Factor	16-19		20-24		25-34		35-44		45-54		55-64		65+	
	Age Group													
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Hood/tailgate/door/covering opened	1	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%
Defective glazing (obscured)	1	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	0	<0.1%	1	<0.1%
Vehicle modifications	4	<0.1%	4	<0.1%	8	0.1%	5	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%
Fire	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	1	<0.1%
Overloaded/oversized	0	<0.1%	1	<0.1%	0	<0.1%	0	<0.1%	2	<0.1%	1	<0.1%	0	<0.1%
Load shifted/spilled	0	<0.1%	1	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%
Jack-knife/trailer swing	1	<0.1%	1	<0.1%	4	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%	0	<0.1%
Hydroplaning tires	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	<0.1%
Any At-fault Environmental Condition	828	19.8%	822	18.2%	1,188	18.3%	1,187	16.6%	1,331	19.6%	779	18.0%	497	14.1%
Animal action - Wild	296	7.1%	352	7.8%	554	8.5%	607	8.5%	771	11.4%	455	10.5%	254	7.2%
Animal action - Domestic	19	0.5%	21	0.5%	32	0.5%	29	0.4%	26	0.4%	20	0.5%	14	0.4%
Slippery road surface	351	8.4%	324	7.2%	428	6.6%	383	5.4%	361	5.3%	200	4.6%	135	3.8%
Snow drift	28	0.7%	25	0.6%	34	0.5%	30	0.4%	25	0.4%	15	0.4%	10	0.3%
Obstruction/debris on roadway	16	0.4%	19	0.4%	26	0.4%	19	0.3%	23	0.3%	13	0.3%	11	0.3%
View obstructed/limited	42	1.0%	35	0.8%	54	0.8%	56	0.8%	64	0.9%	37	0.9%	39	1.1%
Glare/reflection	9	0.2%	9	0.2%	13	0.2%	11	0.2%	13	0.2%	10	0.2%	11	0.3%
Construction zone	4	0.1%	4	<0.1%	5	<0.1%	7	<0.1%	7	<0.1%	4	<0.1%	4	0.1%
Defective driving surface	42	1.0%	20	0.5%	32	0.5%	27	0.4%	28	0.4%	12	0.3%	8	0.2%
Shoulders defective	3	<0.1%	2	<0.1%	4	<0.1%	6	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%
Lane markings inadequate	1	<0.1%	0	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	-
Defective/inoperative traffic control	3	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%
Weather	39	0.9%	37	0.8%	61	0.9%	51	0.7%	52	0.8%	29	0.7%	22	0.6%
Pedestrian corridor in use	2	<0.1%	3	<0.1%	3	<0.1%	4	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%
Uninvolved vehicle	17	0.4%	13	0.3%	14	0.2%	17	0.2%	21	0.3%	13	0.3%	6	0.2%
Uninvolved pedestrian	2	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	4	<0.1%	1	<0.1%	1	<0.1%
Presence of prior accident	2	<0.1%	3	<0.1%	4	<0.1%	6	<0.1%	6	<0.1%	3	<0.1%	2	<0.1%
No contributing factor(s) identified	1,036	24.8%	1,240	27.5%	1,845	28.4%	1,774	24.8%	1,910	28.1%	1,216	28.1%	1,025	29.0%
Not applicable/Not stated	0	<0.1%	0	-	0	-	0	<0.1%	0	-	0	-	0	<0.1%
Total	4,184	100%	4,513	100%	6,505	100%	7,149	100%	6,789	100%	4,319	100%	3,537	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-6a have been truncated to allow for formatting to fit this page.

Table 9-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age

Table 9-7

Driver Involvement Rate (per 10,000 Licensed Drivers) in All Collisions by Contributing Factors and Age Group: 2009

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any At-fault Driver Action	237.0	159.4	90.1	74.5	57.6	47.8	53.6
Following too closely	28.4	24.0	13.9	11.1	8.7	7.2	5.7
Turning improperly	13.0	10.7	5.3	5.1	4.9	4.6	5.4
Passing improperly	2.6	1.4	1.8	1.2	1.4	0.5	1.5
Changing lanes improperly	7.5	6.4	3.7	4.0	2.5	2.8	1.9
Fail to yield right-of-way	29.9	17.0	13.3	9.5	8.9	8.8	12.8
Disobey traffic control device/officer	11.8	10.5	4.5	4.8	3.8	2.6	4.1
Drive wrong way on roadway	0.6	0.5	0.2	0.1	0.3	0.3	<0.1
Passing a vehicle at pedestrian X-walk	0.2	-	0.2	-	-	-	-
Back unsafely	10.5	5.4	4.5	6.6	4.7	4.6	4.9
Parking improperly	0.4	0.2	0.4	0.7	0.4	0.7	0.6
Careless Driving	20.1	15.9	8.4	6.2	4.2	3.8	3.0
Lost control/Drive off road	35.3	25.6	12.3	8.7	6.3	5.0	5.3
Driverless vehicle ran out of control	0.2	0.2	0.2	-	<0.1	-	<0.1
Leave stop sign before safe to do so	8.5	4.6	2.0	3.2	2.2	1.5	4.0
Failed to signal	0.4	-	0.6	0.1	<0.1	0.2	-
Take avoiding action	11.8	8.4	6.1	6.4	4.3	3.0	2.6
Driver inexperience	41.9	7.8	2.3	1.8	0.5	0.2	0.3
Pedestrian error/confusion	1.5	1.4	0.8	0.5	0.6	0.4	0.4
NET Speed	59.4	40.3	21.4	14.2	10.7	6.3	5.9
Exceeding speed limit	7.7	3.7	1.8	0.5	0.4	<0.1	0.3
Driving too fast for conditions	41.5	30.7	16.1	11.5	8.2	4.8	3.6
Unsafe operating speed (Too fast or too slow)	13.0	6.7	4.1	2.2	2.2	1.4	2.0
Any At-fault Human Condition	56.2	43.6	21.5	16.4	12.1	10.2	13.3
Loss of consciousness/Blackout prior to collision	0.6	0.8	0.6	0.3	0.3	0.3	0.6
Extreme fatigue/Fell asleep	5.3	2.4	1.0	1.1	0.6	0.7	0.7
Defective eyesight	0.4	0.2	-	<0.1	0.1	<0.1	0.7
Defective hearing	-	-	-	0.1	-	-	-
Medical disability	-	0.2	0.4	<0.1	0.4	0.2	0.6
Physical disability	0.2	0.2	<0.1	0.2	0.1	-	0.7
Mental disability	-	-	<0.1	<0.1	-	<0.1	0.2
Mental confusion/Inability to remember	-	0.3	0.4	0.1	0.2	0.2	0.8
Sudden illness	0.4	-	<0.1	-	0.2	0.2	0.6
Distraction/Inattention	37.6	26.1	13.1	9.8	7.8	7.2	8.9
Exceed hours of service (commercial drivers only)	-	-	-	-	-	<0.1	-
NET Impaired	12.6	14.7	6.2	5.0	2.6	1.7	0.4
Ability impaired alcohol	8.5	8.9	4.4	3.3	1.9	1.1	0.2
Ability impaired drugs	0.4	0.5	0.2	<0.1	0.1	0.2	<0.1
Had been drinking/Suspected alcohol use	4.3	5.9	1.9	2.0	0.8	0.5	0.2
Any At-fault Vehicle Defect	7.7	4.8	2.7	2.3	2.4	2.2	0.7
Defective brakes	1.7	0.8	0.4	0.7	0.7	0.6	<0.1
Defective steering	1.1	0.5	0.3	0.1	0.1	<0.1	-
Defective headlights	0.6	-	0.2	-	-	-	<0.1
Defective brake lights	-	-	-	-	-	-	-
Defective lighting (unspecified)	-	0.2	-	<0.1	<0.1	0.2	-
Defective engine controls/drive train	0.6	0.5	<0.1	<0.1	0.2	0.2	<0.1
Defective suspension/wheels	0.2	0.5	0.2	0.1	0.1	<0.1	-
Defective tires	1.3	1.0	0.6	0.3	0.3	0.3	0.2
Tow hitch/yoke defective	-	0.2	0.3	-	-	-	-
Defective exhaust system	-	-	-	-	-	<0.1	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Hood/tailgate/door/covering opened	0.4	0.3	0.3	0.3	0.2	0.4	-
Defective glazing (obscured windows)	0.6	0.3	<0.1	0.2	<0.1	<0.1	<0.1
Vehicle modifications	0.2	0.2	-	-	-	<0.1	-
Fire	-	-	-	-	-	-	-
Overloaded/oversized	-	-	-	<0.1	0.1	-	-
Load shifted/spilled	-	0.2	<0.1	0.2	0.2	-	-
Jack-knife/trailer swing	0.2	0.2	0.3	<0.1	<0.1	-	<0.1
Hydroplaning tires	0.6	0.2	-	<0.1	<0.1	<0.1	-
Any At-fault Environmental Condition	139.1	114.0	77.2	78.6	76.6	59.2	42.9
Animal action - Wild	54.1	48.6	33.1	41.6	47.1	37.2	23.2
Animal action - Domestic	2.6	3.2	2.0	2.6	1.5	1.4	1.2
Slippery road surface	56.6	45.5	32.1	25.5	21.1	14.4	11.4
Snow drift	1.7	1.8	1.8	1.3	1.0	0.9	0.7
Obstruction/debris on roadway	1.3	1.1	1.1	0.6	0.9	0.7	1.0
View obstructed/limited	7.1	5.4	2.3	2.8	2.4	2.1	2.5
Glare/reflection	1.9	1.1	0.6	0.4	0.4	0.4	1.0
Construction zone	0.2	1.4	0.5	0.5	0.1	0.6	0.4
Defective driving surface	11.1	2.9	2.1	1.3	1.1	0.7	0.5
Shoulders defective	0.4	1.0	<0.1	0.1	0.4	-	-
Lane markings inadequate	0.6	0.3	<0.1	0.1	<0.1	-	<0.1
Defective/inoperative traffic control device	0.9	0.3	0.2	-	0.1	<0.1	-
Weather	4.9	6.4	3.3	2.6	2.7	2.0	1.0
Pedestrian corridor in use	0.2	0.5	0.2	0.1	<0.1	<0.1	-
Uninvolved vehicle	0.9	1.1	0.6	0.6	0.6	0.7	0.7
Uninvolved pedestrian	0.4	0.5	0.5	0.4	0.1	<0.1	0.2
Presence of prior accident	-	0.6	0.2	0.7	0.4	0.2	0.2

Table 9-7a Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age for Previous Five Years

Table 9-7a

Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age Group: 2004-2008 Average

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any At-fault Driver Action	301.0	186.1	105.4	87.0	69.0	65.0	72.5
Following too closely	32.8	21.6	13.3	11.3	9.3	7.7	5.9
Turning improperly	15.9	10.7	6.3	5.7	5.1	5.3	7.6
Passing improperly	4.0	2.8	1.8	1.2	1.1	1.0	1.2
Changing lanes improperly	9.3	6.3	2.9	2.7	2.6	2.4	4.0
Fail to yield right-of-way	34.5	24.6	14.2	12.7	11.0	12.3	16.0
Disobey traffic control device/officer	12.2	11.3	6.7	4.6	3.8	3.6	5.6
Drive wrong way on roadway	1.1	1.0	0.5	0.4	0.2	0.2	0.5
Passing a vehicle at pedestrian X-walk	0.3	0.1	<0.1	<0.1	<0.1	-	<0.1
Back unsafely	21.1	13.1	9.4	8.9	8.7	9.3	10.5
Parking improperly	1.8	1.0	0.7	0.9	0.9	1.0	1.5
Careless Driving	20.2	13.6	7.3	5.5	4.0	3.5	3.6
Lost control/Drive off road	37.5	22.5	12.2	9.1	6.0	5.0	4.6
Driverless vehicle ran out of control	0.4	0.2	0.3	0.3	0.2	0.2	0.1
Leave stop sign before safe to do so	9.0	5.6	3.6	3.2	2.7	2.7	5.7
Failed to signal	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Take avoiding action	12.1	9.5	5.8	4.5	3.8	3.7	1.7
Driver inexperience	63.6	10.1	3.2	5.1	0.8	0.6	0.4
Pedestrian error/confusion	3.0	1.9	1.0	0.9	0.7	0.4	0.8
NET Speed	74.0	49.4	24.4	17.1	11.6	9.1	5.7
Exceeding speed limit	8.9	6.2	1.8	1.3	0.6	0.4	0.2
Driving too fast for conditions	57.0	39.2	20.3	14.2	10.2	7.8	5.0
Unsafe operating speed (Too fast or too slow)	10.0	5.4	2.6	1.9	0.9	1.0	0.6
Any At-fault Human Condition	69.4	53.9	28.2	21.5	17.2	16.2	19.7
Loss of consciousness/Blackout prior to collision	0.7	1.2	0.4	0.5	0.5	0.5	0.7
Extreme fatigue/Fell asleep	5.4	4.2	1.7	1.1	0.9	0.7	0.8
Defective eyesight	0.5	0.2	0.2	0.2	<0.1	0.1	0.6
Defective hearing	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Medical disability	0.1	0.1	0.1	0.1	0.2	0.3	0.7
Physical disability	0.5	0.1	0.2	0.2	0.2	0.2	0.5
Mental disability	0.2	<0.1	0.1	<0.1	0.1	<0.1	0.2
Mental confusion/Inability to remember	0.4	0.4	0.2	<0.1	0.2	0.2	1.3
Sudden illness	0.2	0.2	<0.1	0.1	0.2	0.3	0.3
Distraction/Inattention	48.5	33.2	18.2	14.5	12.2	12.0	14.2
Exceed hours of service (commercial drivers only)	<0.1	-	-	<0.1	-	<0.1	-
NET Impaired	14.2	15.5	7.8	5.2	3.3	2.1	1.0
Ability impaired alcohol	8.8	9.1	5.3	3.5	2.3	1.6	0.6
Ability impaired drugs	0.6	0.6	0.2	0.2	<0.1	<0.1	<0.1
Had been drinking/Suspected alcohol use	5.5	6.6	2.7	1.7	1.1	0.6	0.3
Any At-fault Vehicle Defect	10.5	6.8	4.6	3.6	2.8	2.6	1.5
Defective brakes	2.8	1.5	0.9	0.8	0.6	0.4	0.4
Defective steering	0.6	0.4	0.2	0.2	0.2	0.1	0.1
Defective headlights	0.3	0.2	<0.1	<0.1	<0.1	<0.1	-
Defective brake lights	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective lighting (unspecified)	0.3	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Defective engine controls/drive train	1.0	0.4	0.4	0.3	0.2	0.3	0.2
Defective suspension/wheels	0.6	0.5	0.3	0.2	0.2	0.1	<0.1
Defective tires	2.7	1.4	0.8	0.5	0.5	0.2	0.1
Tow hitch/yoke defective	<0.1	0.1	0.3	0.1	<0.1	0.1	<0.1
Defective exhaust system	<0.1	0.1	<0.1	<0.1	-	-	-

(Continued next page)

(Continued from previous page)

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Hood/tailgate/door/covering opened	0.2	0.2	0.1	0.2	0.2	<0.1	0.1
Defective glazing (obscured windows)	0.3	0.4	<0.1	0.1	<0.1	<0.1	<0.1
Vehicle modifications	0.9	0.7	0.7	0.3	0.2	0.3	<0.1
Fire	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Overloaded/oversized	<0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Load shifted/spilled	<0.1	0.2	0.2	0.3	0.3	0.3	0.1
Jack-knife/trailer swing	0.1	0.1	0.3	0.2	0.2	0.3	<0.1
Hydroplaning tires	0.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Any At-fault Environmental Condition	181.7	137.3	99.9	84.6	88.3	71.9	44.8
Animal action - Wild	64.8	58.7	46.6	43.3	51.2	42.0	22.9
Animal action - Domestic	4.2	3.6	2.7	2.0	1.7	1.9	1.3
Slippery road surface	77.1	54.1	36.0	27.3	23.9	18.4	12.2
Snow drift	6.2	4.2	2.9	2.1	1.7	1.4	0.9
Obstruction/debris on roadway	3.5	3.2	2.2	1.4	1.5	1.2	1.0
View obstructed/limited	9.3	5.8	4.5	4.0	4.2	3.5	3.5
Glare/reflection	1.9	1.4	1.1	0.8	0.9	0.9	1.0
Construction zone	0.9	0.7	0.4	0.5	0.4	0.4	0.4
Defective driving surface	9.2	3.4	2.7	1.9	1.8	1.1	0.7
Shoulders defective	0.7	0.4	0.4	0.5	0.2	0.2	0.2
Lane markings inadequate	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	-
Defective/inoperative traffic control device	0.6	0.5	0.1	0.2	0.1	0.1	<0.1
Weather	8.6	6.2	5.1	3.6	3.4	2.7	2.0
Pedestrian corridor in use	0.5	0.4	0.2	0.3	0.3	0.2	0.1
Uninvolved vehicle	3.8	2.1	1.2	1.2	1.4	1.2	0.5
Uninvolved pedestrian	0.5	0.3	0.4	0.3	0.3	<0.1	0.1
Presence of prior accident	0.5	0.5	0.3	0.4	0.4	0.3	0.2

Younger drivers, especially those under the age of 25, tend to have higher driver involvement rates in traffic collisions overall and in collisions where specific contributing factors are noted.

In 2009, the involvement rate in collisions for drivers aged 16 to 19 with:

- Any at-fault driver action as a contributing factor is:
    - 1.5 times that of drivers aged 20 to 24;
    - 2.6 times that of drivers aged 25 to 34;
    - 3.2 times that of drivers aged 35 to 44; and,
    - 4.5 times that of drivers aged 45 and older.
- Any at-fault human condition as a contributing factor is:
    - 1.3 times that of drivers aged 20 to 24;
    - 2.6 times that of drivers aged 25 to 34;
    - 3.4 times that of drivers aged 35 to 44; and,
    - 4.8 times that of drivers aged 45 and older.
- "Driver inexperience" as a contributing factor is:
    - 5.4 times that of drivers aged 20 to 24;
    - 18.1 times that of drivers aged 25 to 34;
    - 23.8 times that of drivers aged 35 to 44; and,
    - 127.6 times that of drivers aged 45 and older.

In 2009, the involvement rate in collisions for drivers aged 20 to 24 with:

- Any at-fault driver action as a contributing factor is:
    - 1.8 times that of drivers aged 25 to 34;
    - 2.1 times that of drivers aged 35 to 44; and,
    - 3.0 times that of drivers aged 45 and older.
- Any at-fault human condition as a contributing factor is:
    - 2.0 times that of drivers aged 25 to 34;
    - 2.7 times that of drivers aged 35 to 44; and,
    - 3.7 times that of drivers aged 45 and older.

- "Driver inexperience" as a contributing factor is:
    - 3.4 times that of drivers aged 25 to 34;
    - 4.4 times that of drivers aged 35 to 44; and,
    - 23.8 times that of drivers aged 45 and older.

As with driver involvement rates in traffic collisions overall, many drivers in specific age groups experienced a decrease in their involvement in specific contributing factors when comparing 2009 to the previous five years (2004 to 2008) on average.

The involvement rate in collisions for drivers aged 16 to 19 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 237.0 in 2009, down 21% from the previous five years (301.0);
- "Speed" was a contributing factor – 59.4 in 2009, down 20% from the previous five years (74.0);
- "Driver inexperience" was a contributing factor – 41.9 in 2009, down 34% from the previous five years (63.6);
- "Lost control" was a contributing factor – 35.3 in 2009, down 6% from the previous five years (37.5);
- "Fail to yield right-of-way" was a contributing factor – 29.9 in 2009, down 13% from the previous five years (34.5);
- "Careless driving" was a contributing factor – 20.1 in 2009, relatively unchanged from the previous five years (20.2);
- Any at-fault human condition was a contributing factor – 56.2 in 2009, down 19% from the previous five years (69.4);
- "Distraction/inattention" was a contributing factor – 37.6 in 2009, down 22% from the previous five years (48.5);
- "Impaired" was a contributing factor – 12.6 in 2009, down 11% from the previous five years (14.2);
- "Slippery road surface" was a contributing factor – 56.6 in 2009, down nearly 27% from the previous five years (77.1); and,
- "Animal action – wild" was a contributing factor – 54.1 in 2009, down nearly 17% from the previous five years (64.8).

The involvement rate in collisions for drivers aged 20 to 24 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 159.4 in 2009, down 14% from the previous five years (186.1);
- "Speed" was a contributing factor – 40.3 in 2009, down 18% from the previous five years (49.4);
- "Driver inexperience" was a contributing factor – 7.8 in 2009, down 22% from the previous five years (10.1);
- "Lost control" was a contributing factor – 25.6 in 2009, up 14% from the previous five years (22.5);
- "Fail to yield right-of-way" was a contributing factor – 17.0 in 2009, down 31% from the previous five years (24.6);
- "Careless driving" was a contributing factor – 15.9 in 2009, up 17% from the previous five years (13.6);
- Any at-fault human condition was a contributing factor – 43.6 in 2009, down 19% from the previous five years (53.9);
- "Distraction/inattention" was a contributing factor – 26.1 in 2009, down 21% from the previous five years (33.2);
- "Impaired" was a contributing factor – 14.7 in 2009, down 6% from the previous five years (15.5);
- "Slippery road surface" was a contributing factor – 45.5 in 2009, down 16% from the previous five years (54.1); and,
- "Animal action – wild" was a contributing factor – 48.6 in 2009, down 17% from the previous five years (58.7).

The involvement rate in collisions for drivers aged 25 to 34 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 90.1 in 2009, down 15% from the previous five years (105.4);
- "Speed" was a contributing factor – 21.4 in 2009, down 12% from the previous five years (24.4);
- "Lost control" was a contributing factor – 12.3 in 2009, relatively unchanged from the previous five years (12.2);
- "Fail to yield right-of-way" was a contributing factor – 13.3 in 2009, down nearly 7% from the previous five years (14.2);
- "Careless driving" was a contributing factor – 8.4 in 2009, up nearly 15% from the previous five years (7.3);
- Any at-fault human condition was a contributing factor – 21.5 in 2009, down 24% from the previous five years (28.2);
- "Distraction/inattention" was a contributing factor – 13.1 in 2009, down 28% from the previous five years (18.2);
- "Impaired" was a contributing factor – 6.2 in 2009, down 20% from the previous five years (7.8);
- "Slippery road surface" was a contributing factor – 32.1 in 2009, down 11% from the previous five years (36.0); and,
- "Animal action – wild" was a contributing factor – 33.1 in 2009, down nearly 29% from the previous five years (46.6).

The involvement rate in collisions for drivers aged 35 to 44 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 74.5 in 2009, down 14% from the previous five years (87.0);
- "Speed" was a contributing factor – 14.2 in 2009, down 17% from the previous five years (17.1);
- "Lost control" was a contributing factor – 8.7 in 2009, down 5% from the previous five years (9.1);
- "Fail to yield right-of-way" was a contributing factor – 9.5 in 2009, down 25% from the previous five years (12.7);
- "Careless driving" was a contributing factor – 6.2 in 2009, up 14% from the previous five years (5.5);
- Any at-fault human condition was a contributing factor – 16.4 in 2009, down nearly 24% from the previous five years (21.5);
- "Distraction/inattention" was a contributing factor – 9.8 in 2009, down 32% from the previous five years (14.5);
- "Impaired" was a contributing factor – 5.0 in 2009, down slightly from the previous five years (5.2);
- "Slippery road surface" was a contributing factor – 25.5 in 2009, down 6% from the previous five years (27.3); and,
- "Animal action – wild" was a contributing factor – 41.6 in 2009, down 4% from the previous five years (43.3).

The involvement rate in collisions for drivers aged 45 to 54 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 57.6 in 2009, down nearly 17% from the previous five years (69.0);
- "Speed" was a contributing factor – 10.7 in 2009, down nearly 9% from the previous five years (11.6);
- "Lost control" was a contributing factor – 6.3 in 2009, up slightly from the previous five years (6.0);
- "Fail to yield right-of-way" was a contributing factor – 8.9 in 2009, down 19% from the previous five years (11.0);
- "Careless driving" was a contributing factor – 4.2 in 2009, up slightly from the previous five years (4.0);
- Any at-fault human condition was a contributing factor – 12.1 in 2009, down 30% from the previous five years (17.2);
- "Distraction/inattention" was a contributing factor – 7.8 in 2009, down 36% from the previous five years (12.2);
- "Impaired" was a contributing factor – 2.6 in 2009, down 20% from the previous five years (3.3);
- "Slippery road surface" was a contributing factor – 21.1 in 2009, down 12% from the previous five years (23.9); and,
- "Animal action – wild" was a contributing factor – 47.1 in 2009, down 8% from the previous five years (51.2).

The involvement rate in collisions for drivers aged 55 to 64 in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 47.8 in 2009, down nearly 27% from the previous five years (65.0);
- "Speed" was a contributing factor – 6.3 in 2009, down 31% from the previous five years (9.1);
- "Lost control" was a contributing factor – 5.0 in 2009, relatively unchanged from the previous five years (5.0);
- "Fail to yield right-of-way" was a contributing factor – 8.8 in 2009, down 28% from the previous five years (12.3);
- "Careless driving" was a contributing factor – 3.8 in 2009, up slightly from the previous five years (3.5);
- Any at-fault human condition was a contributing factor – 10.2 in 2009, down 37% from the previous five years (16.2);
- "Distraction/inattention" was a contributing factor – 7.2 in 2009, down 40% from the previous five years (12.0);
- "Impaired" was a contributing factor – 1.7 in 2009, down 19% from the previous five years (2.1);
- "Slippery road surface" was a contributing factor – 14.4 in 2009, down 22% from the previous five years (18.4); and,
- "Animal action – wild" was a contributing factor – 37.2 in 2009, down 11% from the previous five years (42.0).

The involvement rate in collisions for drivers aged 65 and older in 2009 compared to the previous five years (2004 to 2008) on average where:

- Any at-fault driver action was a contributing factor – 53.6 in 2009, down 26% from the previous five years (72.5);
- "Speed" was a contributing factor – 5.9 in 2009, up slightly from the previous five years (5.7);
- "Lost control" was a contributing factor – 5.3 in 2009, up 14% from the previous five years (4.6);
- "Fail to yield right-of-way" was a contributing factor – 12.8 in 2009, down 20% from the previous five years (16.0);
- "Careless driving" was a contributing factor – 3.0 in 2009, down 15% from the previous five years (3.6);
- Any at-fault human condition was a contributing factor – 13.3 in 2009, down nearly 33% from the previous five years (19.7);
- "Distraction/inattention" was a contributing factor – 8.9 in 2009, down 37% from the previous five years (14.2);
- "Impaired" was a contributing factor – 0.4 in 2009, relatively unchanged from the previous five years (1.0);
- "Slippery road surface" was a contributing factor – 11.4 in 2009, down 6% from the previous five years (12.2); and,
- "Animal action – wild" was a contributing factor – 23.2 in 2009, relatively unchanged from the previous five years (22.9).

Table 9-8 Contributing Factors to a Collision by Collision Severity

Table 9-8
Contributing Factors to a Collision by Collision Severity: 2009

Contributing Factor	2009 Collision Severity						2009 Total Collisions	% of 2009 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	33	39.8%	2,524	46.8%	8,639	40.9%	11,196	42.1%
Driver Action - Driving properly	5	6.0%	495	9.2%	1,921	9.1%	2,421	9.1%
Any At-fault Driver Action	63	75.9%	1,894	35.1%	5,279	25.0%	7,236	27.2%
Following too closely	1	1.2%	262	4.9%	825	3.9%	1,088	4.1%
Turning improperly	2	2.4%	130	2.4%	440	2.1%	572	2.2%
Passing improperly	1	1.2%	17	0.3%	106	0.5%	124	0.5%
Changing lanes improperly	0	-	45	0.8%	318	1.5%	363	1.4%
Fail to yield right-of-way	3	3.6%	287	5.3%	844	4.0%	1,134	4.3%
Disobey traffic control device/officer	4	4.8%	174	3.2%	301	1.4%	479	1.8%
Drive wrong way on roadway	0	-	7	0.1%	19	<0.1%	26	<0.1%
Passing a vehicle at pedestrian X-walk	0	-	2	<0.1%	1	<0.1%	3	<0.1%
Back unsafely	0	-	23	0.4%	470	2.2%	493	1.9%
Parking improperly	0	-	3	<0.1%	43	0.2%	46	0.2%
Careless Driving	16	19.3%	226	4.2%	386	1.8%	628	2.4%
Lost control/Drive off road	28	33.7%	344	6.4%	477	2.3%	849	3.2%
Driverless vehicle ran out of control	0	-	3	<0.1%	7	<0.1%	10	<0.1%
Leave stop sign before safe to do so	5	6.0%	87	1.6%	167	0.8%	259	1.0%
Failed to signal	0	-	5	<0.1%	12	<0.1%	17	<0.1%
Take avoiding action	2	2.4%	96	1.8%	314	1.5%	412	1.6%
Driver inexperience	3	3.6%	88	1.6%	257	1.2%	348	1.3%
Pedestrian error/confusion	4	4.8%	79	1.5%	5	<0.1%	88	0.3%
NET Speed	23	27.7%	424	7.9%	989	4.7%	1,436	5.4%
Exceeding speed limit	10	12.0%	40	0.7%	67	0.3%	117	0.4%
Driving too fast for conditions	9	10.8%	230	4.3%	839	4.0%	1,078	4.1%
Unsafe operating speed (Too fast or too slow)	5	6.0%	165	3.1%	110	0.5%	280	1.1%

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						**2009 Total Collisions**	**% of 2009 Total Collisions**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	12	14.5%	1,241	23.0%	4,573	21.7%	**5,826**	**21.9%**
Any At-fault Human Condition	33	39.8%	559	10.4%	1,093	5.2%	**1,685**	**6.3%**
Loss of consciousness/Blackout prior to collision	4	4.8%	17	0.3%	16	<0.1%	**37**	**0.1%**
Extreme fatigue/Fell asleep	0	-	44	0.8%	51	0.2%	**95**	**0.4%**
Defective eyesight	1	1.2%	4	<0.1%	11	<0.1%	**16**	**<0.1%**
Defective hearing	0	-	0	-	2	<0.1%	**2**	**<0.1%**
Medical disability	0	-	12	0.2%	11	<0.1%	**23**	**<0.1%**
Physical disability	1	1.2%	8	0.1%	9	<0.1%	**18**	**<0.1%**
Mental disability	0	-	2	<0.1%	4	<0.1%	**6**	**<0.1%**
Mental confusion/Inability to remember	0	-	9	0.2%	16	<0.1%	**25**	**<0.1%**
Sudden illness	2	2.4%	6	0.1%	9	<0.1%	**17**	**<0.1%**
Distraction/Inattention	3	3.6%	318	5.9%	766	3.6%	**1,087**	**4.1%**
Exceed hours of service (commercial drivers only)	0	-	1	<0.1%	0	-	**1**	**<0.1%**
NET Impaired	23	27.7%	160	3.0%	222	1.1%	**405**	**1.5%**
Ability impaired alcohol	10	12.0%	107	2.0%	146	0.7%	**263**	**1.0%**
Ability impaired drugs	0	-	4	<0.1%	12	<0.1%	**16**	**<0.1%**
Had been drinking/Suspected alcohol use	13	15.7%	60	1.1%	78	0.4%	**151**	**0.6%**
No apparent (vehicle) defect	41	49.4%	2,939	54.5%	10,092	47.8%	**13,072**	**49.2%**
Any At-fault Vehicle Defect	2	2.4%	65	1.2%	147	0.7%	**214**	**0.8%**
Defective brakes	0	-	19	0.4%	31	0.1%	**50**	**0.2%**
Defective steering	0	-	5	<0.1%	12	<0.1%	**17**	**<0.1%**
Defective headlights	0	-	2	<0.1%	5	<0.1%	**7**	**<0.1%**
Defective brake lights	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective lighting (unspecified)	1	1.2%	0	-	6	<0.1%	**7**	**<0.1%**
Defective engine controls/drive train	0	-	5	<0.1%	12	<0.1%	**17**	**<0.1%**
Defective suspension/wheels	0	-	3	<0.1%	8	<0.1%	**11**	**<0.1%**
Defective tires	0	-	10	0.2%	25	0.1%	**35**	**0.1%**
Tow hitch/yoke defective	0	-	2	<0.1%	3	<0.1%	**5**	**<0.1%**
Defective exhaust system	0	-	1	<0.1%	0	-	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						**2009 Total Collisions**	**% of 2009 Total Collisions**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Hood/tailgate/door/covering opened	0	-	8	0.1%	15	<0.1%	**23**	**<0.1%**
Defective glazing (obscured windows)	0	-	6	0.1%	6	<0.1%	**12**	**<0.1%**
Vehicle modifications	0	-	0	-	3	<0.1%	**3**	**<0.1%**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	1	1.2%	1	<0.1%	2	<0.1%	**4**	**<0.1%**
Load shifted/spilled	0	-	0	-	10	<0.1%	**10**	**<0.1%**
Jack-knife/trailer swing	0	-	1	<0.1%	8	<0.1%	**9**	**<0.1%**
Hydroplaning tires	0	-	4	<0.1%	3	<0.1%	**7**	**<0.1%**
Any At-fault Environmental Condition	11	13.3%	742	13.8%	5,011	23.7%	**5,764**	**21.7%**
Animal action - Wild	0	-	192	3.6%	2,843	13.5%	**3,035**	**11.4%**
Animal action - Domestic	0	-	19	0.4%	130	0.6%	**149**	**0.6%**
Slippery road surface	9	10.8%	334	6.2%	1,525	7.2%	**1,868**	**7.0%**
Snow drift	0	-	10	0.2%	79	0.4%	**89**	**0.3%**
Obstruction/debris on roadway	0	-	9	0.2%	62	0.3%	**71**	**0.3%**
View obstructed/limited	1	1.2%	56	1.0%	167	0.8%	**224**	**0.8%**
Glare/reflection	0	-	16	0.3%	38	0.2%	**54**	**0.2%**
Construction zone	0	-	8	0.1%	27	0.1%	**35**	**0.1%**
Defective driving surface	0	-	38	0.7%	108	0.5%	**146**	**0.5%**
Shoulders defective	0	-	4	<0.1%	15	<0.1%	**19**	**<0.1%**
Lane markings inadequate	0	-	2	<0.1%	7	<0.1%	**9**	**<0.1%**
Defective/inoperative traffic control device	0	-	6	0.1%	8	<0.1%	**14**	**<0.1%**
Weather	1	1.2%	61	1.1%	144	0.7%	**206**	**0.8%**
Pedestrian corridor in use	0	-	17	0.3%	0	-	**17**	**<0.1%**
Uninvolved vehicle	0	-	15	0.3%	42	0.2%	**57**	**0.2%**
Uninvolved pedestrian	0	-	7	0.1%	13	<0.1%	**20**	**<0.1%**
Presence of prior accident	0	-	6	0.1%	17	<0.1%	**23**	**<0.1%**
No contributing factor(s) identified	13	15.7%	2,379	44.1%	9,131	43.3%	**11,523**	**43.4%**
Not applicable/Not stated	0	-	2	<0.1%	6	<0.1%	**8**	**<0.1%**
Total	83	100%	5,396	100%	21,099	100%	**26,578**	**100.0%**

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-8a Contributing Factors to a Collision by Collision Severity for Previous Five Years

Table 9-8a

Contributing Factors to a Collision by Collision Severity: 2004 to 2008 Average

Contributing Factor	2004-2008 Average Count				
	Fatal	Injury	PDO	Total Drivers	% of Total Victims
Driver Action - Driving Properly and Human Condition - Apparently Normal	29	3,308	10,403	13,740	43.9%
Driver Action - Driving properly	5	449	1,698	2,152	6.9%
Any At-fault Driver Action	63	2,327	6,110	8,500	27.2%
Following too closely	1	315	775	1,091	3.5%
Turning improperly	2	144	456	602	1.9%
Passing improperly	3	30	102	134	
Changing lanes improperly	0	46	292	338	1.1%
Fail to yield right-of-way	5	410	915	1,330	4.2%
Disobey traffic control device/officer	4	217	330	551	1.8%
Drive wrong way on roadway	3	17	22	43	0.1%
Passing a vehicle at pedestrian X-walk	0	3	1	4	<0.1%
Back unsafely	0	34	854	889	2.8%
Parking improperly	1	5	86	92	0.3%
Careless Driving	9	225	378	613	2.0%
Lost control/Drive off road	17	293	475	785	2.5%
Driverless vehicle ran out of control	0	3	16	19	<0.1%
Leave stop sign before safe to do so	1	116	206	323	1.0%
Failed to signal	0	3	14	17	<0.1%
Take avoiding action	3	99	257	359	1.1%
Driver inexperience	4	137	335	477	1.5%
Pedestrian error/confusion	4	94	11	109	0.3%
NET Speed	23	476	1,117	1,616	5.2%
Exceeding speed limit	10	55	82	147	0.5%
Driving too fast for conditions	10	361	951	1,322	4.2%
Unsafe operating speed (Too fast or too slow)	5	69	105	180	0.6%
Human Condition - Apparently Normal	18	1,659	5,309	6,985	22.3%
Any At-fault Human Condition	44	727	1,324	2,095	6.7%
Loss of consciousness/Blackout prior to collision	2	30	13	45	0.1%
Extreme fatigue/Fell asleep	2	48	64	115	0.4%
Defective eyesight	1	5	12	18	<0.1%
Defective hearing	0	2	3	5	<0.1%
Medical disability	0	9	10	19	<0.1%
Physical disability	0	4	15	19	<0.1%
Mental disability	0	6	4	11	<0.1%
Mental confusion/Inability to remember	0	13	15	28	<0.1%
Sudden illness	1	7	6	13	<0.1%
Distraction/Inattention	9	450	969	1,429	
Exceed hours of service (commercial drivers only)	0	1	1	2	<0.1%
NET Impaired	29	182	237	448	1.4%
Ability impaired alcohol	16	118	156	290	0.9%
Ability impaired drugs	2	7	6	15	<0.1%
Had been drinking/Suspected alcohol use	14	68	85	167	0.5%
No apparent (vehicle) defect	49	3,897	12,106	16,052	51.3%
Any At-fault Vehicle Defect	3	72	227	301	1.0%
Defective brakes	0	20	46	66	0.2%
Defective steering	0	4	11	15	<0.1%
Defective headlights	1	2	3	6	<0.1%
Defective brake lights	0	1	5	6	<0.1%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004-2008 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Victims
Defective lighting (unspecified)	0	4	4	8	<0.1%
Defective engine controls/drive train	0	5	21	26	<0.1%
Defective suspension/wheels	0	5	12	17	<0.1%
Defective tires	1	14	36	51	0.2%
Tow hitch/yoke defective	0	1	9	10	<0.1%
Defective exhaust system	0	1	1	2	<0.1%
Hood/tailgate/door/covering opened	0	2	9	11	<0.1%
Defective glazing (obscured windows)	0	2	6	8	<0.1%
Vehicle modifications	0	2	24	26	<0.1%
Fire	0	1	5	5	<0.1%
Overloaded/oversized	0	1	3	5	<0.1%
Load shifted/spilled	0	4	15	20	<0.1%
Jack-knife/trailer swing	0	3	13	16	<0.1%
Hydroplaning tires	0	2	5	6	<0.1%
Any At-fault Environmental Condition	15	944	5,678	6,637	21.2%
Animal action - Wild	1	201	3,199	3,400	10.9%
Animal action - Domestic	1	23	145	168	0.5%
Slippery road surface	8	464	1,638	2,110	6.7%
Snow drift	0	32	135	168	0.5%
Obstruction/debris on roadway	0	20	108	128	0.4%
View obstructed/limited	2	72	249	323	1.0%
Glare/reflection	1	25	51	77	0.2%
Construction zone	0	8	22	30	<0.1%
Defective driving surface	0	48	118	167	0.5%
Shoulders defective	0	6	17	23	<0.1%
Lane markings inadequate	0	2	3	5	<0.1%
Defective/inoperative traffic control device	0	5	8	13	<0.1%
Weather	3	78	196	276	0.9%
Pedestrian corridor in use	0	15	5	20	<0.1%
Uninvolved vehicle	0	24	75	99	0.3%
Uninvolved pedestrian	0	7	12	20	<0.1%
Presence of prior accident	0	9	14	23	<0.1%
No contributing factor(s) identified	23	2,861	11,492	14,376	45.9%
Not applicable/Not stated	0	1	2	3	<0.1%
Total	93	6,446	24,760	31,298	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

While contributing factors are recorded for each driver involved in a collision, examining contributing factors at the driver level does not reveal the full detail of what may have caused the collision overall. To understand the contributing factors to a collision, contributing factors recorded for each vehicle and/or driver involved in the collision are examined at the collision level, that is, rather than at the individual driver level. In this analysis, if any driver involved is noted as having a particular contributing factor, that factor is considered as contributing to the collision overall.

In 2009, half of all collisions (48%) had at least one driver noted as having an at-fault contributing factor. Nearly all fatal collisions (92%) had at least one driver with an at-fault contributing factor while half of injury collisions (49%) did. In the previous five years (2004 to 2008) on average, nearly 48% of all collisions had at least one driver noted as having an at-fault contributing factor, including 84% of fatal collisions and 50% of injury collisions.

In 2009:
- 27% of all collisions had at least one driver noted as having an at-fault driver action (76% of fatal collisions; 35% of injury collisions; 25% of PDO collisions);
- 6% of all collisions had at least one driver noted as having an at-fault human condition (40% of fatal collisions; 10% of injury collisions; 5% of PDO collisions);
- 22% of all collisions had at least one driver noted as having an environmental condition contributing to the collision (13% of fatal collisions; 14% of injury collisions; 24% of PDO collisions) ; and,
- Less than one percent of collisions had a vehicle defect noted as contributing to the collision.

In 2004 to 2008, on average:
- 27% of all collisions had at least one driver noted as having an at-fault driver action (69% of fatal collisions; 36% of injury collisions; 25% of PDO collisions);
- 7% of all collisions had at least one driver noted as having an at-fault human condition (47% of fatal collisions; 11% of injury collisions; 5% of PDO collisions);
- 21% of all collisions had at least one driver noted as having an environmental condition contributing to the collision (16% of fatal collisions; 15% of injury collisions; 23% of PDO collisions) ; and,
- 1% of collisions had a vehicle defect noted as contributing to the collision.

The most prevalent at-fault contributing factors recorded for collisions in 2009 (i.e., where at least one driver involved in the collision was noted as having the specific contributing factor) include:
- "Animal action – wild" – 11% of all collisions (none fatal; 4% injury; 14% PDO);
- "Slippery road surface" – 7% of all collisions (11% fatal; 6% injury; 7% PDO);
- "Speed" – 5% of all collisions (28% fatal; 8% injury; 5% PDO);
- "Fail to yield right-of-way" – 4% of all collisions (4% fatal; 5% injury; 4% PDO);
- "Following too closely" – 4% of all collisions (1% fatal; 5% injury; 4% PDO);
- "Distraction/inattention" – 4% of all collisions (4% fatal; 6% injury; 4% PDO);
- "Lost control/Drive off the road" – 3% of all collisions (34% fatal; 6% injury; 2% PDO); and,
- "Impaired" – 2% of all collisions (28% fatal; 3% injury; 1% PDO).

Table 9-9 Contributing Factors for Victims of a Collision by Casualty Type

Table 9-9

Contributing Factors for Each Victim of a Collision by Casualty Type: 2009

Contributing Factor	2009 Casualty Type								**2009 Total Casualties**	**% of 2009 Total Casualties**
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Driver Action - Driving Properly and Human Condition - Apparently Normal	36	41.9%	136	35.4%	3,335	48.8%	3,471	48.1%	**3,507**	**48.0%**
Driver Action - Driving properly	5	5.8%	32	8.3%	648	9.5%	680	9.4%	**685**	**9.4%**
Any At-fault Driver Action	65	75.6%	201	52.3%	2,536	37.1%	2,737	37.9%	**2,802**	**38.4%**
Following too closely	1	1.2%	4	1.0%	354	5.2%	358	5.0%	**359**	**4.9%**
Turning improperly	2	2.3%	10	2.6%	178	2.6%	188	2.6%	**190**	**2.6%**
Passing improperly	1	1.2%	1	0.3%	24	0.4%	25	0.3%	**26**	**0.4%**
Changing lanes improperly	0	-	5	1.3%	50	0.7%	55	0.8%	**55**	**0.8%**
Fail to yield right-of-way	3	3.5%	27	7.0%	378	5.5%	405	5.6%	**408**	**5.6%**
Disobey traffic control device/officer	4	4.7%	21	5.5%	262	3.8%	283	3.9%	**287**	**3.9%**
Drive wrong way on roadway	0	-	0	-	7	0.1%	7	<0.1%	**7**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Back unsafely	0	-	5	1.3%	20	0.3%	25	0.3%	**25**	**0.3%**
Parking improperly	0	-	0	-	5	<0.1%	5	<0.1%	**5**	**<0.1%**
Careless Driving	17	19.8%	41	10.7%	300	4.4%	341	4.7%	**358**	**4.9%**
Lost control/Drive off road	28	32.6%	56	14.6%	460	6.7%	516	7.2%	**544**	**7.5%**
Driverless vehicle ran out of control	0	-	1	0.3%	2	<0.1%	3	<0.1%	**3**	**<0.1%**
Leave stop sign before safe to do so	5	5.8%	10	2.6%	135	2.0%	145	2.0%	**150**	**2.1%**
Failed to signal	0	-	0	-	6	<0.1%	6	<0.1%	**6**	**<0.1%**
Take avoiding action	2	2.3%	12	3.1%	123	1.8%	135	1.9%	**137**	**1.9%**
Driver inexperience	3	3.5%	21	5.5%	127	1.9%	148	2.1%	**151**	**2.1%**
Pedestrian error/confusion	4	4.7%	11	2.9%	72	1.1%	83	1.2%	**87**	**1.2%**
NET Speed	24	27.9%	53	13.8%	593	8.7%	646	9.0%	**670**	**9.2%**
Exceeding speed limit	10	11.6%	15	3.9%	58	0.8%	73	1.0%	**83**	**1.1%**
Driving too fast for conditions	10	11.6%	21	5.5%	326	4.8%	347	4.8%	**357**	**4.9%**
Unsafe operating speed (Too fast or too slow)	5	5.8%	20	5.2%	224	3.3%	244	3.4%	**249**	**3.4%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Casualty Type								2009 Total Casualties	% of 2009 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Human Condition - Apparently Normal	12	14.0%	67	17.4%	1,653	24.2%	1,720	23.8%	**1,732**	**23.7%**
Any At-fault Human Condition	35	40.7%	90	23.4%	746	10.9%	836	11.6%	**871**	**11.9%**
Loss of consciousness/Blackout prior to collision	4	4.7%	2	0.5%	21	0.3%	23	0.3%	**27**	**0.4%**
Extreme fatigue/Fell asleep	0	-	16	4.2%	49	0.7%	65	0.9%	**65**	**0.9%**
Defective eyesight	1	1.2%	1	0.3%	4	<0.1%	5	<0.1%	**6**	**<0.1%**
Defective hearing	0	-	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	2	0.5%	12	0.2%	14	0.2%	**14**	**0.2%**
Physical disability	1	1.2%	2	0.5%	7	0.1%	9	0.1%	**10**	**0.1%**
Mental disability	0	-	1	0.3%	1	<0.1%	2	<0.1%	**2**	**<0.1%**
Mental confusion/Inability to remember	0	-	1	0.3%	10	0.1%	11	0.2%	**11**	**0.2%**
Sudden illness	2	2.3%	1	0.3%	9	0.1%	10	0.1%	**12**	**0.2%**
Distraction/Inattention	3	3.5%	24	6.3%	431	6.3%	455	6.3%	**458**	**6.3%**
Exceed hours of service (commercial drivers only)	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
NET Impaired	25	29.1%	46	12.0%	222	3.2%	268	3.7%	**293**	**4.0%**
Ability impaired alcohol	11	12.8%	27	7.0%	147	2.2%	174	2.4%	**185**	**2.5%**
Ability impaired drugs	0	-	1	0.3%	4	<0.1%	5	<0.1%	**5**	**<0.1%**
Had been drinking/Suspected alcohol use	14	16.3%	21	5.5%	82	1.2%	103	1.4%	**117**	**1.6%**
No apparent (vehicle) defect	43	50.0%	181	47.1%	3,842	56.2%	4,023	55.8%	**4,066**	**55.7%**
Any At-fault Vehicle Defect	2	2.3%	7	1.8%	84	1.2%	91	1.3%	**93**	**1.3%**
Defective brakes	0	-	1	0.3%	28	0.4%	29	0.4%	**29**	**0.4%**
Defective steering	0	-	0	-	6	<0.1%	6	<0.1%	**6**	**<0.1%**
Defective headlights	0	-	0	-	4	<0.1%	4	<0.1%	**4**	**<0.1%**
Defective brake lights	0	-	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	1	1.2%	0	-	0	-	0	-	**1**	**<0.1%**
Defective engine controls/drive train	0	-	1	0.3%	6	<0.1%	7	<0.1%	**7**	**<0.1%**
Defective suspension/wheels	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective tires	0	-	3	0.8%	7	0.1%	10	0.1%	**10**	**0.1%**
Tow hitch/yoke defective	0	-	0	-	2	<0.1%	2	<0.1%	**2**	**<0.1%**
Defective exhaust system	0	-	1	0.3%	0	-	1	<0.1%	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Casualty Type								2009 Total Casualties	% of 2009 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Hood/tailgate/door/covering opened	0	-	0	-	12	0.2%	12	0.2%	12	0.2%
Defective glazing (obscured windows)	0	-	0	-	7	0.1%	7	<0.1%	7	<0.1%
Vehicle modifications	0	-	0	-	0	-	0	-	0	-
Fire	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	1	1.2%	0	-	1	<0.1%	1	<0.1%	2	<0.1%
Load shifted/spilled	0	-	0	-	0	-	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	4	<0.1%	4	<0.1%	4	<0.1%
Hydroplaning tires	0	-	1	0.3%	7	0.1%	8	0.1%	8	0.1%
Any At-fault Environmental Condition	11	12.8%	62	16.1%	969	14.2%	1,031	14.3%	1,042	14.3%
Animal action - Wild	0	-	11	2.9%	235	3.4%	246	3.4%	246	3.4%
Animal action - Domestic	0	-	3	0.8%	18	0.3%	21	0.3%	21	0.3%
Slippery road surface	9	10.5%	27	7.0%	462	6.8%	489	6.8%	498	6.8%
Snow drift	0	-	0	-	18	0.3%	18	0.2%	18	0.2%
Obstruction/debris on roadway	0	-	3	0.8%	19	0.3%	22	0.3%	22	0.3%
View obstructed/limited	1	1.2%	12	3.1%	83	1.2%	95	1.3%	96	1.3%
Glare/reflection	0	-	1	0.3%	20	0.3%	21	0.3%	21	0.3%
Construction zone	0	-	1	0.3%	9	0.1%	10	0.1%	10	0.1%
Defective driving surface	0	-	3	0.8%	41	0.6%	44	0.6%	44	0.6%
Shoulders defective	0	-	0	-	4	<0.1%	4	<0.1%	4	<0.1%
Lane markings inadequate	0	-	0	-	3	<0.1%	3	<0.1%	3	<0.1%
Defective/inoperative traffic control device	0	-	0	-	10	0.1%	10	0.1%	10	0.1%
Weather	1	1.2%	8	2.1%	93	1.4%	101	1.4%	102	1.4%
Pedestrian corridor in use	0	-	1	0.3%	20	0.3%	21	0.3%	21	0.3%
Uninvolved vehicle	0	-	0	-	22	0.3%	22	0.3%	22	0.3%
Uninvolved pedestrian	0	-	0	-	8	0.1%	8	0.1%	8	0.1%
Presence of prior accident	0	-	2	0.5%	15	0.2%	17	0.2%	17	0.2%
No contributing factor(s) identified	13	15.1%	104	27.1%	2,888	42.3%	2,992	41.5%	3,005	41.2%
Not applicable/Not stated	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Total	86	100%	384	100.0%	6,832	100.0%	7,216	100.0%	7,302	100.0%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each casualty type will add to more than the total victims of that casualty type.

Table 9-9a Contributing Factors for Victims of a Collision by Casualty Type for Previous Five Years

Table 9-9a

Contributing Factors for Each Victim of a Collision by Casualty Type: 2004 to 2008 Average

Contributing Factor	2004-2008 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Driver Action - Driving Properly and Human Condition - Apparently Normal	34	162	4,304	4,466	4,500	51.8%
Driver Action - Driving properly	6	33	590	623	629	7.2%
Any At-fault Driver Action	74	236	3,090	3,326	3,399	39.1%
Following too closely	1	7	432	439	439	5.1%
Turning improperly	2	10	196	206	208	2.4%
Passing improperly	3	5	42	46	49	0.6%
Changing lanes improperly	0	3	61	63	64	0.7%
Fail to yield right-of-way	6	35	550	585	591	6.8%
Disobey traffic control device/officer	5	16	329	345	350	4.0%
Drive wrong way on roadway	4	5	26	32	36	0.4%
Passing a vehicle at pedestrian X-walk	0	0	3	3	3	<0.1%
Back unsafely	0	1	37	38	38	0.4%
Parking improperly	1	2	6	8	9	0.1%
Careless Driving	11	36	304	340	351	4.0%
Lost control/Drive off road	19	52	368	420	439	5.0%
Driverless vehicle ran out of control	0	0	3	3	3	<0.1%
Leave stop sign before safe to do so	1	15	162	177	179	2.1%
Failed to signal	0	0	4	5	5	<0.1%
Take avoiding action	3	17	128	145	148	1.7%
Driver inexperience	5	23	195	219	224	2.6%
Pedestrian error/confusion	4	15	85	100	104	1.2%
NET Speed	28	66	632	698	727	8.4%
Exceeding speed limit	11	21	78	98	110	1.3%
Driving too fast for conditions	12	38	475	513	525	6.0%
Unsafe operating speed (Too fast or too slow)	7	12	92	104	111	1.3%
Human Condition - Apparently Normal	20	108	2,193	2,301	2,321	26.7%
Any At-fault Human Condition	50	125	963	1,088	1,138	13.1%
Loss of consciousness/Blackout prior to collision	2	9	31	40	42	0.5%
Extreme fatigue/Fell asleep	3	11	53	64	67	0.8%
Defective eyesight	1	1	7	8	8	<0.1%
Defective hearing	0	0	2	2	3	<0.1%
Medical disability	0	3	11	14	14	0.2%
Physical disability	0	0	6	6	6	<0.1%
Mental disability	0	1	6	7	7	<0.1%
Mental confusion/Inability to remember	0	2	14	16	16	0.2%
Sudden illness	1	2	7	9	10	0.1%
Distraction/Inattention	11	45	612	657	668	7.7%
Exceed hours of service (commercial drivers only)	0	0	1	1	1	<0.1%
NET Impaired	33	58	249	307	340	3.9%
Ability impaired alcohol	18	35	162	198	215	2.5%
Ability impaired drugs	2	3	10	13	15	0.2%
Had been drinking/Suspected alcohol use	16	22	93	115	131	1.5%
No apparent (vehicle) defect	57	233	5,029	5,263	5,320	61.2%
Any At-fault Vehicle Defect	3	11	90	102	105	1.2%
Defective brakes	0	2	25	27	27	0.3%
Defective steering	0	1	5	6	6	<0.1%
Defective headlights	1	1	3	4	5	<0.1%
Defective brake lights	0	0	2	2	2	<0.1%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004-2008 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Defective lighting (unspecified)	0	1	4	5	5	<0.1%
Defective engine controls/drive train	0	1	5	6	6	<0.1%
Defective suspension/wheels	0	0	7	7	7	<0.1%
Defective tires	1	4	21	25	25	0.3%
Tow hitch/yoke defective	0	0	1	1	1	<0.1%
Defective exhaust system	0	0	1	2	2	<0.1%
Hood/tailgate/door/covering opened	0	0	2	2	2	<0.1%
Defective glazing (obscured windows)	0	0	3	3	3	<0.1%
Vehicle modifications	0	0	2	2	2	<0.1%
Fire	0	0	0	1	1	<0.1%
Overloaded/oversized	0	0	2	2	2	<0.1%
Load shifted/spilled	0	1	5	5	5	<0.1%
Jack-knife/trailer swing	0	0	3	3	3	<0.1%
Hydroplaning tires	0	0	2	2	2	<0.1%
Any At-fault Environmental Condition	20	97	1,199	1,295	1,315	15.1%
Animal action - Wild	1	17	241	257	258	3.0%
Animal action - Domestic	1	3	27	30	31	0.4%
Slippery road surface	11	38	610	648	660	7.6%
Snow drift	0	3	40	42	43	0.5%
Obstruction/debris on roadway	0	2	25	27	27	0.3%
View obstructed/limited	3	11	93	103	106	1.2%
Glare/reflection	1	4	32	36	37	0.4%
Construction zone	0	1	12	13	13	0.2%
Defective driving surface	0	11	57	68	69	0.8%
Shoulders defective	0	1	7	7	7	<0.1%
Lane markings inadequate	0	0	3	3	3	<0.1%
Defective/inoperative traffic control device	0	1	6	7	8	<0.1%
Weather	3	13	99	112	116	1.3%
Pedestrian corridor in use	0	2	17	19	19	0.2%
Uninvolved vehicle	0	0	30	31	31	0.4%
Uninvolved pedestrian	0	0	10	11	11	0.1%
Presence of prior accident	0	2	13	15	16	0.2%
No contributing factor(s) identified	26	113	3,476	3,589	3,615	41.6%
Not applicable/Not stated	0	0	1	1	1	<0.1%
Total	106	442	8,141	8,583	8,690	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each casualty type will add to more than the total victims of that casualty type.

To understand the contributing factors to collisions that result in victims being killed and injured, contributing factors recorded for each vehicle and/or driver involved in the collision are examined at the victim level. In this analysis, if any driver involved is noted as having a particular contributing factor, that factor is considered as contributing to the victim being killed or injured.

In 2009, at-fault contributing factors were recorded for at least one driver involved in the collision for just over half of all casualties of collisions (52%). At-fault contributing factors were recorded for:

- 91% of victims killed;
- 71% of victims seriously injured;
- 62% of minor injury victims; and,
- 43% of minimal injury victims.

In 2009, at-fault driver actions were recorded for 38% of all victims (76% of victims killed and 52% of victims who sustained a serious injury) while at-fault human conditions were recorded for 12% of all victims (41% of victims killed and 23% of victims who sustained a serious injury. Environmental conditions were recorded as a contributing factor for at least one driver for 14% of all victims killed and injured in collisions, including for 13% of victims killed and for 16% of victims seriously injured.

In the previous five year period (2004 to 2008) on average, at-fault driver actions were recorded for 69% of all victims killed and 53% of victims seriously injured – at-fault human conditions were recorded for 47% of all victims killed and 28% of victims seriously injured. Environmental conditions were recorded as a contributing factor for at least one driver for 15% of all victims killed and injured in collisions, including for 19% of victims killed and for 22% of victims seriously injured.

In 2009, the most prevalent at-fault contributing factors recorded for drivers of vehicles in which victims are killed include:

- "Lost control/Drive off the road" – 33% of victims killed (nearly 18% in the previous five years);
- "Impaired" – 29% of victims killed (31% in the previous five years);
- "Speed" – 28% of victims killed (27% in the previous five years);
- "Careless driving" – 20% of victims killed (nearly 11% in the previous five years);
- "Slippery road surface" – 11% of victims killed (11% in the previous five years);
- "Leave stop sign before safe to do so" – 6% of victims killed (1% in the previous five years);
- "Disobey traffic control device" – 5% of victims killed (4% in the previous five years);
- "Loss of consciousness/Blackout prior to collision" – 5% of victims killed (2% in the previous five years);
- "Fail to yield right-of-way" – 4% of victims killed (5% in the previous five years);
- "Distraction/Inattention" – 4% of victims killed (10% in the previous five years); and,
- "Driver inexperience" – 4% of victims killed (5% in the previous five years).

In 2009, the most prevalent at-fault contributing factors recorded for drivers of vehicles in which victims sustained a serious injury include:

- "Lost control/Drive off the road" – 15% of victims seriously injured (12% in the previous five years);
- "Speed" – 14% of victims seriously injured (15% in the previous five years);
- "Impaired" – 12% of victims seriously injured (13% in the previous five years);
- "Careless driving" – 11% of victims seriously injured (8% in the previous five years);
- "Fail to yield right-of-way" – 7% of victims seriously injured (8% in the previous five years);
- "Slippery road surface" – 7% of victims seriously injured (9% in the previous five years);
- "Disobey traffic control device" – 6% of victims seriously injured (4% in the previous five years);
- "Distraction/Inattention" – 6% of victims seriously injured (10% in the previous five years); and,
- "Driver inexperience" – 6% of victims seriously injured (5% in the previous five years).

Table 9-10 Historical Summary of Contributing Factors Recorded for Drivers Involved in Collisions

Table 9-10

Historical Summary of Contributing Factors for Drivers Involved in Collisions: 2004 to 2009

Contributing Factor	2004 Total Drivers	% of 2004 Total Drivers	2005 Total Drivers	% of 2005 Total Drivers	2006 Total Drivers	% of 2006 Total Drivers	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	16,073	30.9%	14,522	29.7%	13,967	30.1%	14,105	31.5%	12,041	28.6%	11,958	29.1%
Driver Action - Driving properly	1,989	3.8%	2,259	4.6%	1,985	4.3%	1,923	4.3%	2,123	5.0%	2,397	5.8%
Any At-fault Driver Action	9,100	17.5%	9,274	19.0%	8,324	17.9%	8,502	19.0%	7,368	17.5%	7,313	17.8%
Following too closely	1,117	2.1%	1,201	2.5%	1,043	2.2%	1,169	2.6%	1,001	2.4%	1,110	2.7%
Turning improperly	662	1.3%	619	1.3%	626	1.3%	581	1.3%	503	1.2%	572	1.4%
Passing improperly	151	0.3%	145	0.3%	126	0.3%	124	0.3%	117	0.3%	124	0.3%
Changing lanes improperly	382	0.7%	335	0.7%	314	0.7%	348	0.8%	307	0.7%	362	0.9%
Fail to yield right-of-way	1,424	2.7%	1,395	2.9%	1,245	2.7%	1,414	3.2%	1,092	2.6%	1,123	2.7%
Disobey traffic control device/officer	515	1.0%	572	1.2%	517	1.1%	587	1.3%	496	1.2%	480	1.2%
Drive wrong way on roadway	46	<0.1%	32	<0.1%	36	<0.1%	38	<0.1%	23	<0.1%	22	<0.1%
Passing a vehicle at pedestrian X-walk	4	<0.1%	5	<0.1%	6	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%
Back unsafely	1,070	2.1%	1,135	2.3%	994	2.1%	752	1.7%	464	1.1%	479	1.2%
Parking improperly	84	0.2%	93	0.2%	90	0.2%	48	0.1%	33	<0.1%	37	<0.1%
Careless Driving	579	1.1%	600	1.2%	636	1.4%	555	1.2%	650	1.5%	623	1.5%
Lost control/Drive off road	768	1.5%	809	1.7%	683	1.5%	744	1.7%	913	2.2%	849	2.1%
Driverless vehicle ran out of control	23	<0.1%	16	<0.1%	9	<0.1%	10	<0.1%	6	<0.1%	7	<0.1%
Leave stop sign before safe to do so	357	0.7%	341	0.7%	319	0.7%	322	0.7%	267	0.6%	259	0.6%
Failed to signal	17	<0.1%	12	<0.1%	12	<0.1%	16	<0.1%	24	<0.1%	17	<0.1%
Take avoiding action	333	0.6%	426	0.9%	366	0.8%	370	0.8%	337	0.8%	428	1.0%
Driver inexperience	420	0.8%	491	1.0%	529	1.1%	428	1.0%	468	1.1%	344	0.8%
Pedestrian error/confusion	29	<0.1%	25	<0.1%	43	<0.1%	29	<0.1%	26	<0.1%	23	<0.1%
NET Speed	1,823	3.5%	1,732	3.5%	1,399	3.0%	1,660	3.7%	1,530	3.6%	1,453	3.5%
Exceeding speed limit	145	0.3%	156	0.3%	165	0.4%	136	0.3%	137	0.3%	117	0.3%
Driving too fast for conditions	1,532	2.9%	1,439	2.9%	1,104	2.4%	1,388	3.1%	1,222	2.9%	1,095	2.7%
Unsafe operating speed (Too fast or too slow)	180	0.3%	177	0.4%	164	0.4%	164	0.4%	196	0.5%	278	0.7%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Drivers	% of 2004 Total Drivers	2005 Total Drivers	% of 2005 Total Drivers	2006 Total Drivers	% of 2006 Total Drivers	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers
Human Condition - Apparently Normal	7,451	14.3%	7,032	14.4%	7,092	15.3%	7,681	17.1%	7,065	16.8%	**6,309**	**15.4%**
Any At-fault Human Condition	2,041	3.9%	2,145	4.4%	2,109	4.5%	1,980	4.4%	1,865	4.4%	**1,637**	**4.0%**
Loss of consciousness/Blackout prior to collision	42	<0.1%	44	<0.1%	52	0.1%	35	<0.1%	45	0.1%	**35**	**<0.1%**
Extreme fatigue/Fell asleep	109	0.2%	115	0.2%	127	0.3%	107	0.2%	113	0.3%	**95**	**0.2%**
Defective eyesight	21	<0.1%	10	<0.1%	17	<0.1%	20	<0.1%	15	<0.1%	**15**	**<0.1%**
Defective hearing	8	<0.1%	6	<0.1%	3	<0.1%	4	<0.1%	4	<0.1%	**2**	**<0.1%**
Medical disability	17	<0.1%	11	<0.1%	28	<0.1%	24	<0.1%	12	<0.1%	**23**	**<0.1%**
Physical disability	17	<0.1%	18	<0.1%	20	<0.1%	15	<0.1%	18	<0.1%	**15**	**<0.1%**
Mental disability	7	<0.1%	8	<0.1%	7	<0.1%	6	<0.1%	7	<0.1%	**6**	**<0.1%**
Mental confusion/Inability to remember	27	<0.1%	26	<0.1%	20	<0.1%	36	<0.1%	23	<0.1%	**24**	**<0.1%**
Sudden illness	12	<0.1%	14	<0.1%	13	<0.1%	12	<0.1%	14	<0.1%	**16**	**<0.1%**
Distraction/Inattention	1,376	2.6%	1,503	3.1%	1,442	3.1%	1,376	3.1%	1,286	3.1%	**1,075**	**2.6%**
Exceed hours of service (commercial drivers only)	1	<0.1%	4	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	**1**	**<0.1%**
NET Impaired	450	0.9%	441	0.9%	439	0.9%	393	0.9%	367	0.9%	**374**	**0.9%**
Ability impaired alcohol	281	0.5%	297	0.6%	295	0.6%	260	0.6%	234	0.6%	**246**	**0.6%**
Ability impaired drugs	13	<0.1%	11	<0.1%	18	<0.1%	12	<0.1%	18	<0.1%	**16**	**<0.1%**
Had been drinking/Suspected alcohol use	179	0.3%	154	0.3%	150	0.3%	140	0.3%	133	0.3%	**137**	**0.3%**
No apparent (vehicle) defect	21,401	41.1%	19,841	40.6%	19,090	41.2%	19,615	43.8%	16,885	40.1%	**16,395**	**39.9%**
Any At-fault Vehicle Defect	371	0.7%	281	0.6%	282	0.6%	238	0.5%	231	0.5%	**206**	**0.5%**
Defective brakes	63	0.1%	69	0.1%	67	0.1%	43	<0.1%	50	0.1%	**48**	**0.1%**
Defective steering	16	<0.1%	15	<0.1%	16	<0.1%	16	<0.1%	11	<0.1%	**17**	**<0.1%**
Defective headlights	9	<0.1%	5	<0.1%	5	<0.1%	6	<0.1%	3	<0.1%	**7**	**<0.1%**
Defective brake lights	14	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%	8	<0.1%	**1**	**<0.1%**
Defective lighting (unspecified)	8	<0.1%	6	<0.1%	10	<0.1%	5	<0.1%	3	<0.1%	**4**	**<0.1%**
Defective engine controls/drive train	27	<0.1%	25	<0.1%	19	<0.1%	25	<0.1%	18	<0.1%	**14**	**<0.1%**
Defective suspension/wheels	30	<0.1%	14	<0.1%	18	<0.1%	12	<0.1%	11	<0.1%	**11**	**<0.1%**
Defective tires	61	0.1%	42	<0.1%	65	0.1%	44	<0.1%	41	<0.1%	**33**	**<0.1%**
Tow hitch/yoke defective	12	<0.1%	11	<0.1%	5	<0.1%	12	<0.1%	9	<0.1%	**5**	**<0.1%**
Defective exhaust system	3	<0.1%	0	-	3	<0.1%	2	<0.1%	3	<0.1%	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Drivers	% of 2004 Total Drivers	2005 Total Drivers	% of 2005 Total Drivers	2006 Total Drivers	% of 2006 Total Drivers	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers
Hood/tailgate/door/covering opened	12	<0.1%	8	<0.1%	7	<0.1%	12	<0.1%	11	<0.1%	22	<0.1%
Defective glazing (obscured windows)	12	<0.1%	12	<0.1%	10	<0.1%	1	<0.1%	6	<0.1%	12	<0.1%
Vehicle modifications	45	<0.1%	22	<0.1%	14	<0.1%	20	<0.1%	17	<0.1%	3	<0.1%
Fire	24	<0.1%	0	-	1	<0.1%	0	-	0	-	0	-
Overloaded/oversized	2	<0.1%	3	<0.1%	6	<0.1%	6	<0.1%	2	<0.1%	4	<0.1%
Load shifted/spilled	19	<0.1%	20	<0.1%	16	<0.1%	17	<0.1%	22	<0.1%	10	<0.1%
Jack-knife/trailer swing	10	<0.1%	26	<0.1%	16	<0.1%	12	<0.1%	11	<0.1%	9	<0.1%
Hydroplaning tires	8	<0.1%	5	<0.1%	5	<0.1%	6	<0.1%	8	<0.1%	7	<0.1%
Any At-fault Environmental Condition	8,123	15.6%	7,234	14.8%	6,682	14.4%	6,303	14.1%	5,959	14.1%	5,964	14.5%
Animal action - Wild	3,948	7.6%	3,519	7.2%	3,496	7.5%	3,124	7.0%	2,926	6.9%	3,036	7.4%
Animal action - Domestic	171	0.3%	193	0.4%	171	0.4%	156	0.3%	148	0.4%	149	0.4%
Slippery road surface	2,885	5.5%	2,453	5.0%	2,052	4.4%	1,996	4.5%	1,972	4.7%	2,012	4.9%
Snow drift	234	0.4%	170	0.3%	127	0.3%	151	0.3%	171	0.4%	96	0.2%
Obstruction/debris on roadway	135	0.3%	140	0.3%	118	0.3%	144	0.3%	116	0.3%	74	0.2%
View obstructed/limited	407	0.8%	396	0.8%	350	0.8%	326	0.7%	231	0.5%	240	0.6%
Glare/reflection	90	0.2%	82	0.2%	69	0.1%	67	0.1%	77	0.2%	53	0.1%
Construction zone	23	<0.1%	23	<0.1%	46	<0.1%	45	0.1%	32	<0.1%	37	<0.1%
Defective driving surface	182	0.3%	205	0.4%	168	0.4%	153	0.3%	124	0.3%	145	0.4%
Shoulders defective	17	<0.1%	36	<0.1%	21	<0.1%	21	<0.1%	17	<0.1%	19	<0.1%
Lane markings inadequate	11	<0.1%	2	<0.1%	3	<0.1%	5	<0.1%	5	<0.1%	10	<0.1%
Defective/inoperative traffic control device	8	<0.1%	20	<0.1%	14	<0.1%	21	<0.1%	11	<0.1%	14	<0.1%
Weather	355	0.7%	332	0.7%	266	0.6%	258	0.6%	280	0.7%	220	0.5%
Pedestrian corridor in use	18	<0.1%	13	<0.1%	14	<0.1%	25	<0.1%	16	<0.1%	9	<0.1%
Uninvolved vehicle	101	0.2%	118	0.2%	103	0.2%	104	0.2%	96	0.2%	59	0.1%
Uninvolved pedestrian	20	<0.1%	21	<0.1%	28	<0.1%	18	<0.1%	14	<0.1%	25	<0.1%
Presence of prior accident	26	<0.1%	19	<0.1%	22	<0.1%	23	<0.1%	39	<0.1%	28	<0.1%
No contributing factor(s) identified	18,450	35.5%	16,850	34.5%	15,792	34.0%	13,867	30.9%	13,882	33.0%	13,445	32.7%
Not applicable/Not stated	4	<0.1%	0	-	0	-	1	<0.1%	1	<0.1%	2	<0.1%
Total	52,013	100%	48,898	100%	46,380	100%	44,814	100%	42,120	100%	41,097	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-11 Historical Summary of Contributing Factors to a Collision Overall

Table 9-11

Historical Summary of Contributing Factors to a Collision: 2004 to 2009

Contributing Factor	2004 Total Collisions	% of 2004 Total Collisions	2005 Total Collisions	% of 2005 Total Collisions	2006 Total Collisions	% of 2006 Total Collisions	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	15,753	45.0%	14,384	43.4%	13,749	43.3%	13,546	45.9%	11,269	41.6%	**11,196**	**42.1%**
Driver Action - Driving properly	2,083	6.0%	2,379	7.2%	2,135	6.7%	2,007	6.8%	2,156	8.0%	**2,421**	**9.1%**
Any At-fault Driver Action	9,087	26.0%	9,259	27.9%	8,336	26.3%	8,461	28.7%	7,358	27.2%	**7,236**	**27.2%**
Following too closely	1,106	3.2%	1,176	3.5%	1,034	3.3%	1,153	3.9%	984	3.6%	**1,088**	**4.1%**
Turning improperly	666	1.9%	623	1.9%	632	2.0%	581	2.0%	508	1.9%	**572**	**2.2%**
Passing improperly	154	0.4%	148	0.4%	128	0.4%	122	0.4%	120	0.4%	**124**	**0.5%**
Changing lanes improperly	383	1.1%	336	1.0%	312	1.0%	352	1.2%	305	1.1%	**363**	**1.4%**
Fail to yield right-of-way	1,442	4.1%	1,408	4.2%	1,270	4.0%	1,421	4.8%	1,108	4.1%	**1,134**	**4.3%**
Disobey traffic control device/officer	526	1.5%	582	1.8%	531	1.7%	606	2.1%	508	1.9%	**479**	**1.8%**
Drive wrong way on roadway	54	0.2%	42	0.1%	44	0.1%	42	0.1%	31	0.1%	**26**	**<0.1%**
Passing a vehicle at pedestrian X-walk	4	<0.1%	5	<0.1%	6	<0.1%	2	<0.1%	3	<0.1%	**3**	**<0.1%**
Back unsafely	1,084	3.1%	1,148	3.5%	995	3.1%	747	2.5%	469	1.7%	**493**	**1.9%**
Parking improperly	110	0.3%	120	0.4%	112	0.4%	73	0.2%	43	0.2%	**46**	**0.2%**
Careless Driving	586	1.7%	609	1.8%	646	2.0%	560	1.9%	662	2.4%	**628**	**2.4%**
Lost control/Drive off road	767	2.2%	809	2.4%	686	2.2%	749	2.5%	915	3.4%	**849**	**3.2%**
Driverless vehicle ran out of control	30	<0.1%	20	<0.1%	20	<0.1%	14	<0.1%	10	<0.1%	**10**	**<0.1%**
Leave stop sign before safe to do so	361	1.0%	344	1.0%	320	1.0%	321	1.1%	269	1.0%	**259**	**1.0%**
Failed to signal	17	<0.1%	13	<0.1%	14	<0.1%	16	<0.1%	24	<0.1%	**17**	**<0.1%**
Take avoiding action	325	0.9%	417	1.3%	355	1.1%	364	1.2%	333	1.2%	**412**	**1.6%**
Driver inexperience	435	1.2%	497	1.5%	535	1.7%	439	1.5%	478	1.8%	**348**	**1.3%**
Pedestrian error/confusion	107	0.3%	105	0.3%	131	0.4%	113	0.4%	91	0.3%	**88**	**0.3%**
NET Speed	1,797	5.1%	1,730	5.2%	1,394	4.4%	1,640	5.6%	1,518	5.6%	**1,436**	**5.4%**
Exceeding speed limit	144	0.4%	154	0.5%	162	0.5%	137	0.5%	140	0.5%	**117**	**0.4%**
Driving too fast for conditions	1,506	4.3%	1,430	4.3%	1,100	3.5%	1,365	4.6%	1,207	4.5%	**1,078**	**4.1%**
Unsafe operating speed (Too fast or too slow)	182	0.5%	185	0.6%	167	0.5%	166	0.6%	198	0.7%	**280**	**1.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Collisions	% of 2004 Total Collisions	2005 Total Collisions	% of 2005 Total Collisions	2006 Total Collisions	% of 2006 Total Collisions	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions
Human Condition - Apparently Normal	7,424	21.2%	6,923	20.9%	6,890	21.7%	7,162	24.3%	6,528	24.1%	**5,826**	**21.9%**
Any At-fault Human Condition	2,107	6.0%	2,193	6.6%	2,195	6.9%	2,056	7.0%	1,923	7.1%	**1,685**	**6.3%**
Loss of consciousness/Blackout prior to collision	43	0.1%	44	0.1%	53	0.2%	36	0.1%	47	0.2%	**37**	**0.1%**
Extreme fatigue/Fell asleep	110	0.3%	115	0.3%	128	0.4%	106	0.4%	114	0.4%	**95**	**0.4%**
Defective eyesight	22	<0.1%	12	<0.1%	19	<0.1%	22	<0.1%	15	<0.1%	**16**	**<0.1%**
Defective hearing	8	<0.1%	6	<0.1%	3	<0.1%	4	<0.1%	6	<0.1%	**2**	**<0.1%**
Medical disability	18	<0.1%	12	<0.1%	27	<0.1%	25	<0.1%	12	<0.1%	**23**	**<0.1%**
Physical disability	17	<0.1%	19	<0.1%	23	<0.1%	16	<0.1%	19	<0.1%	**18**	**<0.1%**
Mental disability	11	<0.1%	9	<0.1%	10	<0.1%	8	<0.1%	15	<0.1%	**6**	**<0.1%**
Mental confusion/Inability to remember	28	<0.1%	26	<0.1%	24	<0.1%	37	0.1%	23	<0.1%	**25**	**<0.1%**
Sudden illness	12	<0.1%	14	<0.1%	13	<0.1%	12	<0.1%	14	<0.1%	**17**	**<0.1%**
Distraction/Inattention	1,405	4.0%	1,525	4.6%	1,490	4.7%	1,417	4.8%	1,306	4.8%	**1,087**	**4.1%**
Exceed hours of service (commercial drivers only)	1	<0.1%	4	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	**1**	**<0.1%**
NET Impaired	485	1.4%	466	1.4%	471	1.5%	424	1.4%	396	1.5%	**405**	**1.5%**
Ability impaired alcohol	299	0.9%	307	0.9%	314	1.0%	278	0.9%	253	0.9%	**263**	**1.0%**
Ability impaired drugs	13	<0.1%	11	<0.1%	19	<0.1%	14	<0.1%	19	<0.1%	**16**	**<0.1%**
Had been drinking/Suspected alcohol use	199	0.6%	171	0.5%	167	0.5%	154	0.5%	144	0.5%	**151**	**0.6%**
No apparent (vehicle) defect	18,022	51.5%	16,781	50.6%	16,088	50.7%	15,871	53.8%	13,499	49.8%	**13,072**	**49.2%**
Any At-fault Vehicle Defect	408	1.2%	298	0.9%	306	1.0%	253	0.9%	239	0.9%	**214**	**0.8%**
Defective brakes	74	0.2%	76	0.2%	78	0.2%	47	0.2%	54	0.2%	**50**	**0.2%**
Defective steering	16	<0.1%	16	<0.1%	16	<0.1%	16	<0.1%	12	<0.1%	**17**	**<0.1%**
Defective headlights	10	<0.1%	7	<0.1%	5	<0.1%	7	<0.1%	3	<0.1%	**7**	**<0.1%**
Defective brake lights	15	<0.1%	4	<0.1%	3	<0.1%	2	<0.1%	8	<0.1%	**1**	**<0.1%**
Defective lighting (unspecified)	11	<0.1%	6	<0.1%	12	<0.1%	6	<0.1%	3	<0.1%	**7**	**<0.1%**
Defective engine controls/drive train	31	<0.1%	29	<0.1%	23	<0.1%	27	<0.1%	20	<0.1%	**17**	**<0.1%**
Defective suspension/wheels	32	<0.1%	14	<0.1%	18	<0.1%	12	<0.1%	11	<0.1%	**11**	**<0.1%**
Defective tires	61	0.2%	42	0.1%	67	0.2%	44	0.1%	41	0.2%	**35**	**0.1%**
Tow hitch/yoke defective	14	<0.1%	11	<0.1%	5	<0.1%	11	<0.1%	9	<0.1%	**5**	**<0.1%**
Defective exhaust system	4	<0.1%	0	-	3	<0.1%	2	<0.1%	3	<0.1%	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Collisions	% of 2004 Total Collisions	2005 Total Collisions	% of 2005 Total Collisions	2006 Total Collisions	% of 2006 Total Collisions	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions
Hood/tailgate/door opened	14	<0.1%	9	<0.1%	8	<0.1%	12	<0.1%	11	<0.1%	23	<0.1%
Defective glazing (obscured)	12	<0.1%	12	<0.1%	10	<0.1%	1	<0.1%	7	<0.1%	12	<0.1%
Vehicle modifications	55	0.2%	22	<0.1%	15	<0.1%	24	<0.1%	15	<0.1%	3	<0.1%
Fire	25	<0.1%	0	-	1	<0.1%	1	<0.1%	0	-	0	-
Overloaded/oversized	2	<0.1%	4	<0.1%	7	<0.1%	8	<0.1%	2	<0.1%	4	<0.1%
Load shifted/spilled	20	<0.1%	21	<0.1%	17	<0.1%	17	<0.1%	23	<0.1%	10	<0.1%
Jack-knife/trailer swing	12	<0.1%	26	<0.1%	17	<0.1%	13	<0.1%	12	<0.1%	9	<0.1%
Hydroplaning tires	8	<0.1%	5	<0.1%	5	<0.1%	6	<0.1%	8	<0.1%	7	<0.1%
Any At-fault Environmental Condition	7,801	22.3%	7,028	21.2%	6,516	20.5%	6,098	20.7%	5,742	21.2%	5,764	21.7%
Animal action - Wild	3,947	11.3%	3,514	10.6%	3,493	11.0%	3,123	10.6%	2,922	10.8%	3,035	11.4%
Animal action - Domestic	171	0.5%	193	0.6%	172	0.5%	156	0.5%	148	0.5%	149	0.6%
Slippery road surface	2,635	7.5%	2,297	6.9%	1,933	6.1%	1,865	6.3%	1,821	6.7%	1,868	7.0%
Snow drift	233	0.7%	167	0.5%	126	0.4%	147	0.5%	166	0.6%	89	0.3%
Obstruction/debris on roadway	134	0.4%	136	0.4%	119	0.4%	139	0.5%	113	0.4%	71	0.3%
View obstructed/limited	379	1.1%	378	1.1%	330	1.0%	312	1.1%	215	0.8%	224	0.8%
Glare/reflection	88	0.3%	83	0.3%	68	0.2%	67	0.2%	79	0.3%	54	0.2%
Construction zone	20	<0.1%	22	<0.1%	40	0.1%	41	0.1%	28	0.1%	35	0.1%
Defective driving surface	181	0.5%	205	0.6%	168	0.5%	155	0.5%	124	0.5%	146	0.5%
Shoulders defective	17	<0.1%	35	0.1%	21	<0.1%	22	<0.1%	18	<0.1%	19	<0.1%
Lane markings inadequate	10	<0.1%	3	<0.1%	3	<0.1%	4	<0.1%	5	<0.1%	9	<0.1%
Defective/inoperative traffic control	8	<0.1%	17	<0.1%	12	<0.1%	17	<0.1%	9	<0.1%	14	<0.1%
Weather	327	0.9%	313	0.9%	250	0.8%	234	0.8%	257	0.9%	206	0.8%
Pedestrian corridor in use	18	<0.1%	18	<0.1%	21	<0.1%	25	<0.1%	19	<0.1%	17	<0.1%
Uninvolved vehicle	87	0.2%	117	0.4%	109	0.3%	94	0.3%	86	0.3%	57	0.2%
Uninvolved pedestrian	20	<0.1%	21	<0.1%	25	<0.1%	17	<0.1%	15	<0.1%	20	<0.1%
Presence of prior accident	23	<0.1%	20	<0.1%	20	<0.1%	22	<0.1%	30	0.1%	23	<0.1%
No contributing factor(s) identified	16,733	47.8%	15,797	47.6%	14,802	46.6%	12,791	43.4%	11,757	43.4%	11,523	43.4%
Not applicable/Not stated	5	<0.1%	1	<0.1%	3	<0.1%	1	<0.1%	4	<0.1%	8	<0.1%
Total	35,002	100%	33,164	100%	31,738	100%	29,494	100%	27,092	100%	26,578	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

NOTE: Some labels of specific contributing factors in Table 9-11 have been altered from their original to allow for formatting to fit this page.

Table 9-12 Historical Summary of Contributing Factors Recorded for Victims of Collisions

Table 9-12

Historical Summary of Contributing Factors for Victims (Killed and Injured, Combined) of Collisions: 2004 to 2009

Contributing Factor	**2004 Total Victims**	**% of 2004 Total Victims**	**2005 Total Victims**	**% of 2005 Total Victims**	**2006 Total Victims**	**% of 2006 Total Victims**	**2007 Total Victims**	**% of 2007 Total Victims**	**2008 Total Victims**	**% of 2008 Total Victims**	**2009 Total Victims**	**% of 2009 Total Victims**
Driver Action - Driving Properly and Human Condition - Apparently Normal	4,977	53.4%	4,654	53.2%	4,471	50.7%	4,654	53.9%	3,743	47.2%	**3,507**	**48.0%**
Driver Action - Driving properly	616	6.6%	704	8.0%	640	7.3%	575	6.7%	611	7.7%	**685**	**9.4%**
Any At-fault Driver Action	3,516	37.7%	3,659	41.8%	3,327	37.7%	3,295	38.2%	3,200	40.4%	**2,802**	**38.4%**
Following too closely	446	4.8%	546	6.2%	426	4.8%	418	4.8%	361	4.6%	**359**	**4.9%**
Turning improperly	217	2.3%	221	2.5%	227	2.6%	200	2.3%	175	2.2%	**190**	**2.6%**
Passing improperly	50	0.5%	56	0.6%	56	0.6%	52	0.6%	31	0.4%	**26**	**0.4%**
Changing lanes improperly	82	0.9%	56	0.6%	59	0.7%	64	0.7%	57	0.7%	**55**	**0.8%**
Fail to yield right-of-way	633	6.8%	675	7.7%	638	7.2%	569	6.6%	440	5.6%	**408**	**5.6%**
Disobey traffic control device/officer	371	4.0%	410	4.7%	316	3.6%	335	3.9%	317	4.0%	**287**	**3.9%**
Drive wrong way on roadway	40	0.4%	50	0.6%	33	0.4%	36	0.4%	21	0.3%	**7**	**<0.1%**
Passing a vehicle at pedestrian X-walk	2	<0.1%	5	<0.1%	5	<0.1%	1	<0.1%	3	<0.1%	**3**	**<0.1%**
Back unsafely	56	0.6%	55	0.6%	32	0.4%	22	0.3%	26	0.3%	**25**	**0.3%**
Parking improperly	11	0.1%	12	0.1%	7	<0.1%	11	0.1%	3	<0.1%	**5**	**<0.1%**
Careless Driving	335	3.6%	354	4.0%	269	3.0%	317	3.7%	480	6.1%	**358**	**4.9%**
Lost control/Drive off road	411	4.4%	365	4.2%	398	4.5%	388	4.5%	631	8.0%	**544**	**7.5%**
Driverless vehicle ran out of control	6	<0.1%	4	<0.1%	5	<0.1%	1	<0.1%	0	-	**3**	**<0.1%**
Leave stop sign before safe to do so	177	1.9%	183	2.1%	178	2.0%	180	2.1%	176	2.2%	**150**	**2.1%**
Failed to signal	6	<0.1%	6	<0.1%	5	<0.1%	1	<0.1%	5	<0.1%	**6**	**<0.1%**
Take avoiding action	143	1.5%	137	1.6%	185	2.1%	131	1.5%	144	1.8%	**137**	**1.9%**
Driver inexperience	204	2.2%	208	2.4%	273	3.1%	204	2.4%	230	2.9%	**151**	**2.1%**
Pedestrian error/confusion	103	1.1%	99	1.1%	122	1.4%	109	1.3%	89	1.1%	**87**	**1.2%**
NET Speed	747	8.0%	717	8.2%	615	7.0%	750	8.7%	805	10.2%	**670**	**9.2%**
Exceeding speed limit	112	1.2%	85	1.0%	140	1.6%	104	1.2%	107	1.4%	**83**	**1.1%**
Driving too fast for conditions	561	6.0%	537	6.1%	401	4.5%	568	6.6%	560	7.1%	**357**	**4.9%**
Unsafe operating speed (Too fast or too slow)	98	1.1%	100	1.1%	101	1.1%	96	1.1%	160	2.0%	**249**	**3.4%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Victims	% of 2004 Total Victims	2005 Total Victims	% of 2005 Total Victims	2006 Total Victims	% of 2006 Total Victims	2007 Total Victims	% of 2007 Total Victims	2008 Total Victims	% of 2008 Total Victims	2009 Total Victims	% of 2009 Total Victims
Human Condition - Apparently Normal	2,515	27.0%	2,404	27.5%	2,330	26.4%	2,267	26.3%	2,090	26.4%	**1,732**	**23.7%**
Any At-fault Human Condition	1,186	12.7%	1,163	13.3%	1,222	13.8%	1,096	12.7%	1,021	12.9%	**871**	**11.9%**
Loss of consciousness/Blackout prior to collision	46	0.5%	40	0.5%	50	0.6%	31	0.4%	42	0.5%	**27**	**0.4%**
Extreme fatigue/Fell asleep	60	0.6%	55	0.6%	84	1.0%	65	0.8%	71	0.9%	**65**	**0.9%**
Defective eyesight	6	<0.1%	4	<0.1%	11	0.1%	13	0.2%	8	0.1%	**6**	**<0.1%**
Defective hearing	0	-	4	<0.1%	0	-	3	<0.1%	6	<0.1%	**0**	**-**
Medical disability	11	0.1%	6	<0.1%	30	0.3%	13	0.2%	10	0.1%	**14**	**0.2%**
Physical disability	3	<0.1%	9	0.1%	8	<0.1%	4	<0.1%	6	<0.1%	**10**	**0.1%**
Mental disability	8	<0.1%	3	<0.1%	6	<0.1%	6	<0.1%	12	0.2%	**2**	**<0.1%**
Mental confusion/Inability to remember	16	0.2%	12	0.1%	18	0.2%	20	0.2%	13	0.2%	**11**	**0.2%**
Sudden illness	6	<0.1%	15	0.2%	10	0.1%	9	0.1%	8	0.1%	**12**	**0.2%**
Distraction/Inattention	694	7.5%	732	8.4%	696	7.9%	640	7.4%	578	7.3%	**458**	**6.3%**
Exceed hours of service (commercial drivers only)	0	-	4	<0.1%	1	<0.1%	1	<0.1%	0	-	**1**	**<0.1%**
NET Impaired	374	4.0%	318	3.6%	362	4.1%	333	3.9%	312	3.9%	**293**	**4.0%**
Ability impaired alcohol	234	2.5%	199	2.3%	239	2.7%	215	2.5%	189	2.4%	**185**	**2.5%**
Ability impaired drugs	10	0.1%	18	0.2%	14	0.2%	16	0.2%	19	0.2%	**5**	**<0.1%**
Had been drinking/Suspected alcohol use	146	1.6%	119	1.4%	133	1.5%	126	1.5%	130	1.6%	**117**	**1.6%**
No apparent (vehicle) defect	5,851	62.8%	5,449	62.3%	5,325	60.3%	5,393	62.5%	4,582	57.8%	**4,066**	**55.7%**
Any At-fault Vehicle Defect	128	1.4%	99	1.1%	135	1.5%	88	1.0%	74	0.9%	**93**	**1.3%**
Defective brakes	29	0.3%	26	0.3%	42	0.5%	21	0.2%	19	0.2%	**29**	**0.4%**
Defective steering	5	<0.1%	4	<0.1%	7	<0.1%	6	<0.1%	6	<0.1%	**6**	**<0.1%**
Defective headlights	7	<0.1%	2	<0.1%	5	<0.1%	5	<0.1%	5	<0.1%	**4**	**<0.1%**
Defective brake lights	5	<0.1%	4	<0.1%	1	<0.1%	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	8	<0.1%	3	<0.1%	10	0.1%	4	<0.1%	1	<0.1%	**1**	**<0.1%**
Defective engine controls/drive train	10	0.1%	5	<0.1%	2	<0.1%	7	<0.1%	7	<0.1%	**7**	**<0.1%**
Defective suspension/wheels	14	0.2%	2	<0.1%	13	0.1%	5	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective tires	26	0.3%	31	0.4%	38	0.4%	25	0.3%	7	<0.1%	**10**	**0.1%**
Tow hitch/yoke defective	0	-	0	-	2	<0.1%	1	<0.1%	3	<0.1%	**2**	**<0.1%**
Defective exhaust system	1	<0.1%	0	-	1	<0.1%	1	<0.1%	7	<0.1%	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2004 Total Victims	% of 2004 Total Victims	2005 Total Victims	% of 2005 Total Victims	2006 Total Victims	% of 2006 Total Victims	2007 Total Victims	% of 2007 Total Victims	2008 Total Victims	% of 2008 Total Victims	2009 Total Victims	% of 2009 Total Victims
Hood/tailgate/door/covering opened	1	<0.1%	0	-	1	<0.1%	2	<0.1%	4	<0.1%	12	0.2%
Defective glazing (obscured windows)	7	<0.1%	4	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	7	<0.1%
Vehicle modifications	5	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	1	<0.1%	0	-
Fire	2	<0.1%	0	-	2	<0.1%	0	-	0	-	0	-
Overloaded/oversized	4	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	0	-	2	<0.1%
Load shifted/spilled	3	<0.1%	8	<0.1%	2	<0.1%	6	<0.1%	8	0.1%	0	-
Jack-knife/trailer swing	4	<0.1%	5	<0.1%	5	<0.1%	2	<0.1%	1	<0.1%	4	<0.1%
Hydroplaning tires	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	8	0.1%
Any At-fault Environmental Condition	1,527	16.4%	1,392	15.9%	1,355	15.4%	1,316	15.2%	986	12.4%	1,042	14.3%
Animal action - Wild	254	2.7%	229	2.6%	248	2.8%	319	3.7%	241	3.0%	246	3.4%
Animal action - Domestic	23	0.2%	33	0.4%	33	0.4%	37	0.4%	29	0.4%	21	0.3%
Slippery road surface	853	9.2%	752	8.6%	681	7.7%	579	6.7%	434	5.5%	498	6.8%
Snow drift	67	0.7%	30	0.3%	37	0.4%	46	0.5%	34	0.4%	18	0.2%
Obstruction/debris on roadway	33	0.4%	25	0.3%	27	0.3%	23	0.3%	27	0.3%	22	0.3%
View obstructed/limited	133	1.4%	133	1.5%	94	1.1%	107	1.2%	63	0.8%	96	1.3%
Glare/reflection	57	0.6%	43	0.5%	28	0.3%	26	0.3%	29	0.4%	21	0.3%
Construction zone	9	<0.1%	3	<0.1%	24	0.3%	22	0.3%	8	0.1%	10	0.1%
Defective driving surface	59	0.6%	75	0.9%	106	1.2%	61	0.7%	42	0.5%	44	0.6%
Shoulders defective	1	<0.1%	8	<0.1%	17	0.2%	7	<0.1%	3	<0.1%	4	<0.1%
Lane markings inadequate	6	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%
Defective/inoperative traffic control device	11	0.1%	11	0.1%	5	<0.1%	9	0.1%	2	<0.1%	10	0.1%
Weather	135	1.4%	127	1.5%	129	1.5%	110	1.3%	77	1.0%	102	1.4%
Pedestrian corridor in use	17	0.2%	21	0.2%	18	0.2%	22	0.3%	18	0.2%	21	0.3%
Uninvolved vehicle	28	0.3%	26	0.3%	27	0.3%	47	0.5%	25	0.3%	22	0.3%
Uninvolved pedestrian	6	<0.1%	12	0.1%	14	0.2%	12	0.1%	10	0.1%	8	0.1%
Presence of prior accident	23	0.2%	15	0.2%	12	0.1%	20	0.2%	8	0.1%	17	0.2%
No contributing factor(s) identified	3,994	42.9%	3,588	41.0%	3,731	42.3%	3,535	41.0%	3,229	40.7%	3,005	41.2%
Not applicable/Not stated	2	<0.1%	0	-	0	-	0	-	5	<0.1%	2	<0.1%
Total	9,314	100%	8,753	100%	8,825	100%	8,632	100%	7,924	100%	7,302	100%

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each year will add to more than the total victims for that year.

SECTION 10 - National Safety Code Monitoring Report

SCHOOL BUS
EMERGENCY DOOR
10

Introduction

This section calculates the number of commercial vehicles involved in collisions, the severity of those collisions and the victims killed and injured in those collisions. This section includes only commercial vehicles with a National Safety Code (NSC). It also includes information regarding the type of load being hauled by the vehicles involved in a collision, regardless of vehicle type.

Key Highlights

In 2009, there were 3,800 commercial vehicles involved in traffic collisions. Of these:

- 23 were involved in fatal collisions;
- 781 were involved in injury collisions; and,
- 2,996 were involved in PDO collisions.

Traffic collisions where at least one commercial vehicle was involved resulted in a total of 615 victims in 2009, including:

- 11 victims killed;
- 43 victims seriously injured;
- 561 victims where an injury was minor, minimal or unspecified.

Major Elements Examined

Counts of vehicles involved collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports (TAR) completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of vehicles involved in those collisions, nor does it equal the number of victims in those collisions. All collisions reported involve at least one vehicle, but may involve more than one as well. Likewise, a single collision could involve no victims, or one or more victims.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2004 to 2008. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

The reader is cautioned that not all victims in a collision involving an NSC commercial vehicle will be a driver or passenger in the commercial vehicle. This section calculates the number of total victims resulting from a collision where a commercial vehicle was involved, not just the victims in the commercial vehicle.

Terms and Definitions

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg and pick-up under 4,500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"Truck greater than 4,500 kilograms (unit chassis)"

- A vehicle category that includes all straight trucks with a gross vehicle mass 4,500 kg and over on the vehicle registration. This does not include truck tractors with a fifth wheel assembly.

"Power Unit for Semi-Trailer"

- A vehicle category that includes truck tractors used for the moving of cargo in or on a trailer by means of a fifth wheel connection. This does not include pickups equipped with a fifth wheel.

"Truck (Other)"

- A vehicle category used if the type and size of truck is unknown.

"School Bus"

- A vehicle category that includes a bus authorized for the transportation of students to or from school and related school activities.

"Transit Bus (Urban)"

- A vehicle category that includes a bus used for commercial carrying of passengers within an urban area.

"Inter-City Bus"

- A vehicle category that includes a bus licensed for inter-city or provincial travel.

"Bus (Other)"

- A vehicle category that includes personal use of buses and bus type conversions, but does not include original equipment manufacturer type; for example, buses converted to motor homes.

"Contributing Factor"

- Those circumstances or factors that the reporting police officer recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Pre-collision activity"

- The action of a vehicle immediately prior to involvement in a collision. This is an indication of what the vehicle was doing prior to the accident or to the driver realizing that a collision may occur and does not include vehicle manoeuver to avoid the collision.

Table 10-1 NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity

Table 10-1

NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity: 2009, 2004-2008 Average

Vehicle Category	2009 Collision Severity						**2009 Total**	% of 2009 Total	2004-2008 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Truck >4,500 kgs Unit Chassis	2	8.7%	100	12.8%	389	13.0%	**491**	12.9%	3	132	485	620	14.5%
Power Unit (Semi-Trailer)	10	43.5%	99	12.7%	348	11.6%	**457**	12.0%	13	130	442	585	13.7%
Truck - Other	10	43.5%	536	68.6%	2,127	71.0%	**2,673**	70.3%	5	607	2,203	2,816	66.1%
School Bus	1	4.3%	16	2.0%	47	1.6%	**64**	1.7%	0	10	59	70	1.6%
Transit Bus - Urban	0	-	23	2.9%	52	1.7%	**75**	2.0%	0	24	47	71	1.7%
Para-Transit Bus	0	-	1	0.1%	3	0.1%	**4**	0.1%	0	1	4	5	0.1%
Inter-City Bus	0	-	6	0.8%	18	0.6%	**24**	0.6%	0	13	60	73	1.7%
Bus - Other	0	-	0	-	12	0.4%	**12**	0.3%	0	5	17	22	0.5%
Total	23	100%	781	100%	2,996	100%	**3,800**	100%	22	923	3,317	4,262	100%

In 2009, there were 3,800 commercial vehicles involved in traffic collisions. Of these:

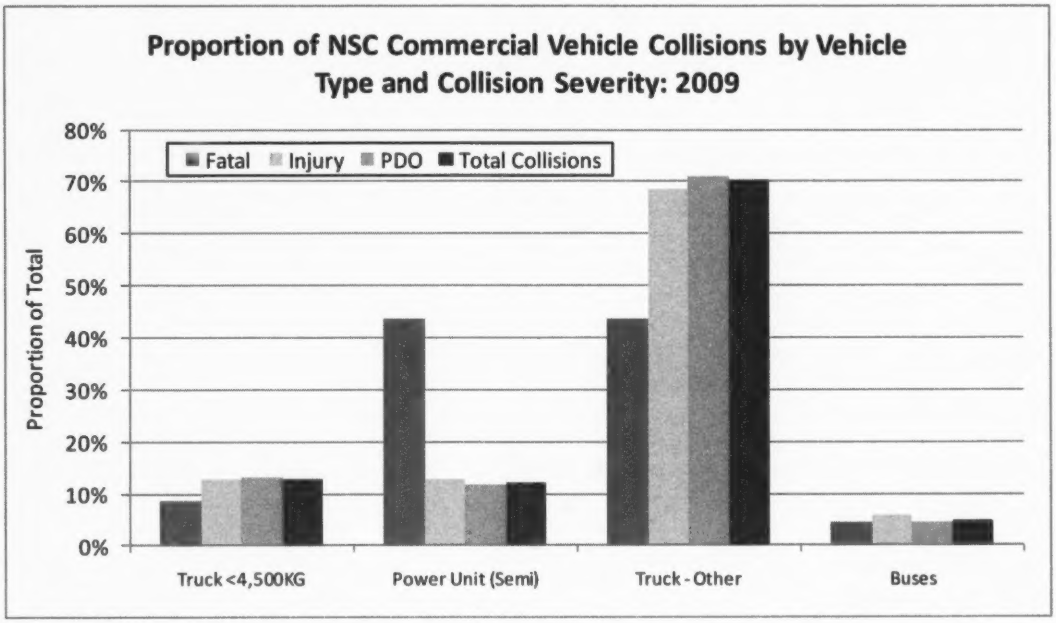
- 23 were involved in fatal collisions;
- 781 were involved in injury collisions; and,
- 2,996 were involved in PDO collisions.

The number of NSC commercial vehicles involved in collisions in 2009 have decreased by 11% compared to the previous five years (2004 to 2008) on average. Compared to the previous five years on average, the number of NSC commercial vehicles in 2009 involved in:

- Fatal collisions increased by a count of one (to 23 in 2009 from 22 in 2004-2008 on average);
- Injury collisions decreased by 15%; and,
- PDO collisions decreased by 10%.

NOTE: For a detailed historical count of NSC Commercial Vehicles involved in traffic collisions occurring in each year from 2004 to 2009, please refer to "*Table 10-6 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type: 2004 to 2009*" at the end of this section.

Figure 10-1 Proportion of NSC Commercial Vehicles by Vehicle Type and Collision Severity



Semi-trucks make up the largest proportions of commercial vehicles involved in traffic collisions. In 2009, semis and other trucks made for a combined total of 82% of the commercial vehicles involved in traffic collisions.

- Semis account for nearly 44% of the commercial vehicles involved in fatal collisions.
- "Other" trucks account for seven in ten commercial vehicles involved in injury (69%) and PDO (71%) collisions.

Table 10-2 Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type

Table 10-2
Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type and Casualty Type: 2009

Vehicle Type	2009 Casualty Type												**2009 Total Victims**	% of 2009 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Truck >4,500 kgs Unit Chassis	2	9.1%	14	20.0%	58	13.4%	53	12.8%	5	3.9%	130	12.4%	**132**	12.4%
Power Unit (Semi-Trailer)	10	45.5%	15	21.4%	64	14.7%	35	8.5%	6	4.7%	120	11.5%	**130**	12.2%
Truck - Other	9	40.9%	31	44.3%	272	62.7%	302	72.9%	106	82.8%	711	68.0%	**720**	67.4%
School Bus	1	4.5%	5	7.1%	11	2.5%	5	1.2%	3	2.3%	24	2.3%	**25**	2.3%
Transit Bus - Urban	0	-	2	2.9%	7	1.6%	17	4.1%	6	4.7%	32	3.1%	**32**	3.0%
Para-Transit Bus	0	-	0	-	3	0.7%	1	0.2%	0	-	4	0.4%	**4**	0.4%
Inter-City Bus	0	-	3	4.3%	19	4.4%	1	0.2%	2	1.6%	25	2.4%	**25**	2.3%
Bus - Other	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Total	22	100%	70	100%	434	100%	414	100%	128	100%	1,046	100%	**1,068**	100%

Table 10-2a Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type for Previous Five Years

Table 10-2a
Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type and Casualty Type: 2004-2008 Average

Vehicle Type	2004-2008 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Truck >4,500 kgs Unit Chassis	3	15	70	69	13	167	171	13.9%
Power Unit (Semi-Trailer)	13	21	84	47	14	167	179	14.6%
Truck - Other	6	31	295	365	105	797	803	65.2%
School Bus	0	0	9	6	1	16	16	1.3%
Transit Bus - Urban	0	3	16	11	2	32	32	2.6%
Para-Transit Bus	0	0	0	0	0	1	1	<0.1%
Inter-City Bus	0	1	6	8	7	22	22	1.8%
Bus - Other	0	0	2	3	1	7	7	0.6%
Total	23	73	483	509	144	1,209	1,231	100%

Traffic collisions where at least one commercial vehicle was involved resulted in a total of 1,068 victims in 2009, including:

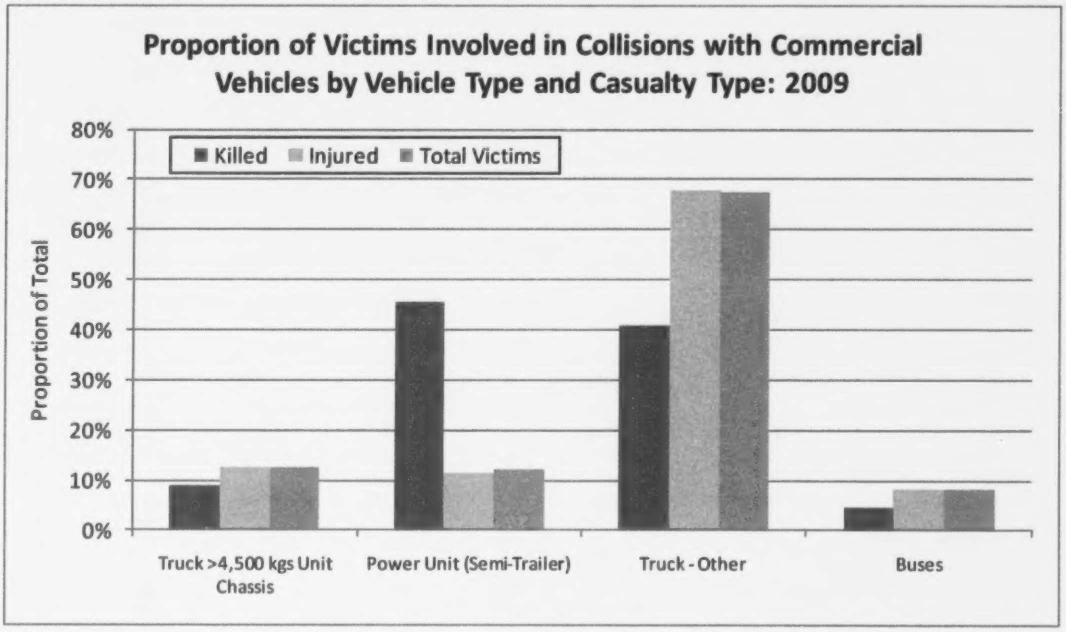
- 22 victims killed;
- 70 victims seriously injured; and
- 976 victims where the injury was minor, minimal or unspecified.

Collisions involving commercial vehicles in 2009 resulted in fewer victims than in the previous five years (2004 to 2008) on average. In 2009:

- The number of victims killed decreased by a count of one (22 in 2009; 23 in 2004-2008 on average);
- The number of victims injured decreased by nearly 14% (1,046 in 2009; 1,209 in 2004-2008 on average); and,
- The number of victims seriously injured decreased by a count of three (70 in 2009; 73 in 2004-2008 on average).

NOTE: For a detailed historical count of traffic collision victims where an NSC Commercial Vehicle was involved in each year from 2004 to 2009, please refer to "*Table 10-7 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type: 2004 to 2009*" at the end of this section.

Figure 10-2 Proportion of Victims Involved in Collisions with NSC Commercial Vehicles by Vehicle Type and Casualty Type



Collisions involving semis and "other" trucks make up the largest proportion of NSC vehicles involved in a collision where a victim was killed (nearly 46% and 41%, respectively). "Other" trucks account for the greatest proportion of victims injured (but not killed) in a collision where an NSC commercial vehicle is involved.

Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity

Table 10-3

NSC Commercial Vehicles Involved in Traffic Collisions by Pre-Collision Activity and Collision Severity: 2009

Pre-Collision Activity	2009 Collision Severity						**2009 Total**	**% of 2009 Total**	2004-2008 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Going Straight Ahead	19	82.6%	439	56.2%	1,368	45.7%	**1,826**	**48.1%**	17	491	1,379	1,887	44.3%
Turning Left	0	-	71	9.1%	222	7.4%	**293**	**7.7%**	1	69	220	290	6.8%
Turning Right	0	-	21	2.7%	138	4.6%	**159**	**4.2%**	0	33	157	191	4.5%
Making U Turn	0	-	1	0.1%	12	0.4%	**13**	**0.3%**	0	3	9	12	0.3%
Changing Lanes – Left	0	-	5	0.6%	31	1.0%	**36**	**0.9%**	0	8	37	45	1.1%
Changing Lanes – Right	0	-	11	1.4%	35	1.2%	**46**	**1.2%**	0	8	43	51	1.2%
Merging	0	-	4	0.5%	27	0.9%	**31**	**0.8%**	0	7	29	36	0.8%
Reversing	0	-	4	0.5%	137	4.6%	**141**	**3.7%**	0	8	223	232	5.4%
Overtaking	1	4.3%	3	0.4%	11	0.4%	**15**	**0.4%**	0	8	16	24	0.6%
Slowing/Stopping on Roadway	0	-	34	4.4%	108	3.6%	**142**	**3.7%**	0	27	82	109	2.6%
Stopped in Traffic	0	-	85	10.9%	308	10.3%	**393**	**10.3%**	0	96	273	368	8.6%
Starting in Traffic	0	-	7	0.9%	21	0.7%	**28**	**0.7%**	0	8	17	25	0.6%
Leave Parking Position/Roadside	0	-	4	0.5%	12	0.4%	**16**	**0.4%**	0	3	16	19	0.4%
Enter Parking Position/Roadside	0	-	0	-	4	0.1%	**4**	**0.1%**	0	1	11	13	0.3%
Parked Legally	1	4.3%	9	1.2%	126	4.2%	**136**	**3.6%**	0	11	228	240	5.6%
Parked Illegally	0	-	0	-	7	0.2%	**7**	**0.2%**	0	1	7	8	0.2%
Swerving	1	4.3%	3	0.4%	12	0.4%	**16**	**0.4%**	1	10	21	33	0.8%
Other	0	-	1	0.1%	0	-	**1**	**<0.1%**	0	0	0	1	<0.1%
Not Applicable/Unknown	1	4.3%	79	10.1%	417	13.9%	**497**	**13.1%**	1	130	548	678	15.9%
Total	23	13%	781	24%	2,996	30%	**3,800**	**29%**	22	923	3,317	4,262	100%

In 2009, most NSC commercial vehicles involved in a collision were "going straight ahead" when the collision occurred (48% of NSC vehicles involved in collisions; 83% involved in fatal collisions; 56% involved in injury collisions; 46% involved in PDO collisions). Over the previous five years (2004 to 2008) on average, "going straight ahead" was noted as the pre-collision action for 44% of all commercial vehicles involved in a collision. Other pre-collision actions of commercial vehicles in 2009 included:

- Stopped or stopping ("stopped in traffic" and "slowing/stopping on roadway" combined) – 14%; and,
- Turning ("turning left" and "turning right" combined) – 12%.

Considering fatal collisions, there are very few pre-collision actions noted in 2009. "Going straight ahead" was noted for 19 of 23 vehicles involved (83% of the commercial vehicles involved in a fatal collision) while "overtaking", "parked legally" and "swerving" was noted for one vehicle, each, of the 23 involved.

Commercial vehicles involved in injury collisions in 2009 were noted most often as "going straight ahead" (56%). Other pre-collision actions of commercial vehicles involved in injury collisions include:

- Stopped or stopping ("stopped in traffic" and slowing/stopping on roadway" combined) – 15%; and,
- Turning ("turning left" and "turning right" combined) – 12%.

Table 10-4 NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity

Table 10-4

NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity: 2009

Contributing Factor	2009 Collision Severity						**2009 Total**	**% of 2009 Total**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	5	21.7%	253	32.4%	872	29.1%	**1,130**	**29.7%**
Driver Action - Driving properly	2	8.7%	46	5.9%	141	4.7%	**189**	**5.0%**
Any At-fault Driver Action	13	56.5%	166	21.3%	518	17.3%	**697**	**18.3%**
Following too closely	0	-	25	3.2%	62	2.1%	**87**	**2.3%**
Turning improperly	0	-	17	2.2%	58	1.9%	**75**	**2.0%**
Passing improperly	0	-	2	0.3%	8	0.3%	**10**	**0.3%**
Changing lanes improperly	0	-	2	0.3%	35	1.2%	**37**	**1.0%**
Fail to yield right of way	2	8.7%	14	1.8%	68	2.3%	**84**	**2.2%**
Disobey traffic control device/officer	1	4.3%	18	2.3%	27	0.9%	**46**	**1.2%**
Drive wrong way on roadway	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	0	-	67	2.2%	**67**	**1.8%**
Parking improperly	0	-	1	0.1%	5	0.2%	**6**	**0.2%**
Careless Driving	5	21.7%	20	2.6%	51	1.7%	**76**	**2.0%**
Lost control/Drive off road	6	26.1%	30	3.8%	36	1.2%	**72**	**1.9%**
Driverless vehicle ran out of control	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Leave stop sign before safe to do so	1	4.3%	6	0.8%	13	0.4%	**20**	**0.5%**
Failed to signal	0	-	1	0.1%	1	<0.1%	**2**	**<0.1%**
Take avoiding action	2	8.7%	17	2.2%	35	1.2%	**54**	**1.4%**
Driver inexperience	0	-	7	0.9%	20	0.7%	**27**	**0.7%**
Pedestrian error/confusion	0	-	0	-	1	<0.1%	**1**	**<0.1%**
NET Speed	4	17.4%	49	6.3%	93	3.1%	**146**	**3.8%**
Exceeding speed limit	1	4.3%	1	0.1%	4	0.1%	**6**	**0.2%**
Driving too fast for conditions	3	13.0%	29	3.7%	76	2.5%	**108**	**2.8%**
Unsafe operating speed (Too fast or too slow)	0	-	19	2.4%	14	0.5%	**33**	**0.9%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						2009 Total	% of 2009 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	4	17.4%	109	14.0%	464	15.5%	**577**	**15.2%**
Any At-fault Human Condition	2	8.7%	41	5.2%	103	3.4%	**146**	**3.8%**
Loss of consciousness/Blackout prior to collision	1	4.3%	1	0.1%	0	-	**2**	**<0.1%**
Extreme fatigue/Fell asleep	0	-	7	0.9%	2	<0.1%	**9**	**0.2%**
Defective eyesight	0	-	1	0.1%	0	-	**1**	**<0.1%**
Defective hearing	0	-	0	-	0	-	**0**	-
Medical disability	0	-	1	0.1%	0	-	**1**	**<0.1%**
Physical disability	0	-	0	-	0	-	**0**	-
Mental disability	0	-	0	-	0	-	**0**	-
Mental confusion/Inability to remember	0	-	1	0.1%	1	<0.1%	**2**	**<0.1%**
Sudden illness	0	-	1	0.1%	2	<0.1%	**3**	**<0.1%**
Distraction/Inattention	0	-	21	2.7%	74	2.5%	**95**	**2.5%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	-
NET Impaired	1	4.3%	10	1.3%	24	0.8%	**35**	**0.9%**
Ability impaired alcohol	0	-	5	0.6%	17	0.6%	**22**	**0.6%**
Ability impaired drugs	0	-	0	-	0	-	**0**	-
Had been drinking/Suspected alcohol use	1	4.3%	5	0.6%	8	0.3%	**14**	**0.4%**
No apparent (vehicle) defect	8	34.8%	354	45.3%	1,150	38.4%	**1,512**	**39.8%**
Any At-fault Vehicle Defect	0	-	10	1.3%	23	0.8%	**33**	**0.9%**
Defective brakes	0	-	4	0.5%	7	0.2%	**11**	**0.3%**
Defective steering	0	-	1	0.1%	1	<0.1%	**2**	**<0.1%**
Defective headlights	0	-	0	-	0	-	**0**	-
Defective brake lights	0	-	0	-	0	-	**0**	-
Defective lighting (unspecified)	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective engine controls/drive train	0	-	1	0.1%	2	<0.1%	**3**	**<0.1%**
Defective suspension/wheels	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective tires	0	-	0	-	3	0.1%	**3**	**<0.1%**
Tow hitch/yoke defective	0	-	1	0.1%	1	<0.1%	**2**	**<0.1%**
Defective exhaust system	0	-	1	0.1%	0	-	**1**	**<0.1%**

(Continued next page)

(Continued from previous page)

Contributing Factor	2009 Collision Severity						2009 Total	% of 2009 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Hood/tailgate/door/covering opened	0	-	1	0.1%	0	-	**1**	**<0.1%**
Defective glazing (obscured windows)	0	-	1	0.1%	0	-	**1**	**<0.1%**
Vehicle modifications	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	0	-	0	-	3	0.1%	**3**	**<0.1%**
Jack-knife/trailer swing	0	-	0	-	5	0.2%	**5**	**0.1%**
Hydroplaning tires	0	-	0	-	0	-	**0**	**-**
Any At-fault Environmental Condition	4	17.4%	72	9.2%	470	15.7%	**546**	**14.4%**
Animal action - Wild	0	-	9	1.2%	199	6.6%	**208**	**5.5%**
Animal action - Domestic	0	-	0	-	14	0.5%	**14**	**0.4%**
Slippery road surface	4	17.4%	39	5.0%	188	6.3%	**231**	**6.1%**
Snow drift	0	-	3	0.4%	11	0.4%	**14**	**0.4%**
Obstruction/debris on roadway	0	-	2	0.3%	5	0.2%	**7**	**0.2%**
View obstructed/limited	0	-	4	0.5%	16	0.5%	**20**	**0.5%**
Glare/reflection	0	-	0	-	0	-	**0**	**-**
Construction zone	0	-	1	0.1%	3	0.1%	**4**	**0.1%**
Defective driving surface	0	-	1	0.1%	13	0.4%	**14**	**0.4%**
Shoulders defective	0	-	1	0.1%	2	<0.1%	**3**	**<0.1%**
Lane markings inadequate	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective/inoperative traffic control device	0	-	1	0.1%	2	<0.1%	**3**	**<0.1%**
Weather	0	-	13	1.7%	22	0.7%	**35**	**0.9%**
Pedestrian corridor in use	0	-	1	0.1%	0	-	**1**	**<0.1%**
Uninvolved vehicle	0	-	2	0.3%	7	0.2%	**9**	**0.2%**
Uninvolved pedestrian	0	-	0	-	2	<0.1%	**2**	**<0.1%**
Presence of prior accident	0	-	1	0.1%	5	0.2%	**6**	**0.2%**
No contributing factor(s) identified	1	4.3%	232	29.7%	1,039	34.7%	**1,272**	**33.5%**
Not applicable/Not stated	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Total	23	100%	781	100%	2,996	100%	**3,800**	**100%**

*NOTE: Each vehicle and/or driver involved in a collision can have up to three contributing factors noted. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total.

Table 10-4a NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity for the Previous Five Years

Table 10-4a

NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity: 2004 to 2008

Contributing Factor	2004-2008 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
Driver Action - Driving Properly and Human Condition - Apparently Normal	8	291	949	1,248	29.3%
Driver Action - Driving properly	1	38	135	174	4.1%
Any At-fault Driver Action	8	220	593	821	19.3%
Following too closely	0	31	66	96	2.3%
Turning improperly	0	12	63	75	1.8%
Passing improperly	0	4	9	13	0.3%
Changing lanes improperly	0	8	32	40	0.9%
Fail to yield right of way	1	32	55	87	2.0%
Disobey traffic control device/officer	0	16	23	39	0.9%
Drive wrong way on roadway	0	0	2	2	<0.1%
Passing a vehicle at pedestrian X-walk	0	0	0	0	-
Back unsafely	0	4	105	109	2.6%
Parking improperly	0	1	6	8	0.2%
Careless Driving	2	23	33	57	1.3%
Lost control/Drive off road	2	32	53	87	2.0%
Driverless vehicle ran out of control	0	0	2	2	<0.1%
Leave stop sign before safe to do so	1	11	12	24	0.6%
Failed to signal	0	0	1	2	<0.1%
Take avoiding action	1	13	29	43	1.0%
Driver inexperience	1	11	30	41	1.0%
Pedestrian error/confusion	1	3	1	5	0.1%
NET Speed	1	51	107	159	3.7%
Exceeding speed limit	0	3	5	8	0.2%
Driving too fast for conditions	1	40	94	134	3.1%
Unsafe operating speed (Too fast or too slow)	0	9	10	20	0.5%
Human Condition - Apparently Normal	4	156	540	700	16.4%
Any At-fault Human Condition	3	56	115	174	4.1%
Loss of consciousness/Blackout prior to collision	0	2	1	4	<0.1%
Extreme fatigue/Fell asleep	1	5	5	11	0.3%
Defective eyesight	0	0	1	1	<0.1%
Defective hearing	0	0	0	0	<0.1%
Medical disability	0	0	1	2	<0.1%
Physical disability	0	0	1	1	<0.1%
Mental disability	0	0	0	0	<0.1%
Mental confusion/Inability to remember	0	0	0	0	<0.1%
Sudden illness	0	1	1	2	<0.1%
Distraction/Inattention	1	38	92	131	3.1%
Exceed hours of service (commercial drivers only)	0	0	0	0	<0.1%
NET Impaired	1	10	12	22	0.5%
Ability impaired alcohol	0	7	7	15	0.3%
Ability impaired drugs	0	0	0	0	<0.1%
Had been drinking/Suspected alcohol use	1	3	5	9	0.2%

(Continued next page)

(Continued from previous page)

Contributing Factor	2004-2008 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
No apparent (vehicle) defect	12	429	1,314	1,755	41.2%
Any At-fault Vehicle Defect	1	15	46	61	1.4%
Defective brakes	0	2	8	11	0.2%
Defective steering	0	1	1	2	<0.1%
Defective headlights	0	1	0	1	<0.1%
Defective brake lights	0	0	1	1	<0.1%
Defective lighting (unspecified)	0	0	1	1	<0.1%
Defective engine controls/drive train	0	2	2	4	<0.1%
Defective suspension/wheels	0	1	2	4	<0.1%
Defective tires	0	2	5	7	0.2%
Tow hitch/yoke defective	0	0	3	4	<0.1%
Defective exhaust system	0	0	1	1	<0.1%
Hood/tailgate/door/covering opened	0	0	2	2	<0.1%
Defective glazing (obscured windows)	0	0	1	1	<0.1%
Vehicle modifications	0	0	2	3	<0.1%
Fire	0	0	0	0	-
Overloaded/oversized	0	1	2	3	<0.1%
Load shifted/spilled	0	3	7	10	0.2%
Jack-knife/trailer swing	0	2	6	8	0.2%
Hydroplaning tires	0	1	0	1	<0.1%
Any At-fault Environmental Condition	1	115	501	617	14.5%
Animal action - Wild	0	14	208	222	5.2%
Animal action - Domestic	0	3	14	17	0.4%
Slippery road surface	1	66	195	262	6.2%
Snow drift	0	3	13	16	0.4%
Obstruction/debris on roadway	0	2	9	10	0.2%
View obstructed/limited	0	8	33	41	1.0%
Glare/reflection	0	3	4	7	0.2%
Construction zone	0	1	5	6	0.1%
Defective driving surface	0	7	15	22	0.5%
Shoulders defective	0	0	5	5	0.1%
Lane markings inadequate	0	0	0	1	<0.1%
Defective/inoperative traffic control device	0	0	2	2	<0.1%
Weather	0	14	37	51	1.2%
Pedestrian corridor in use	0	0	1	1	<0.1%
Uninvolved vehicle	0	2	7	9	0.2%
Uninvolved pedestrian	0	1	1	2	<0.1%
Presence of prior accident	0	2	2	3	<0.1%
No contributing factor(s) identified	3	264	1,166	1,433	33.6%
Not applicable/Not stated	0	0	0	0	-
Total	22	923	3,317	4,262	100%

*NOTE: Each driver and/or vehicle involved in a collision can have up to three contributing factors noted. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total.

Drivers of NSC commercial vehicles involved in traffic collisions are most often noted as "driving properly" and being "apparently normal" at the time of the collision. In 2009, half of the drivers of these vehicles involved in a collision were noted as driving properly and being in a normal human condition, including 30% as "driving properly and apparently normal", 5% as "driving properly" and 15% as "apparently normal". Over the previous five years (2004 to 2008) on average, half of commercial drivers involved in collisions were noted with the same not at-fault factors, with very similar proportions for each specific factor.

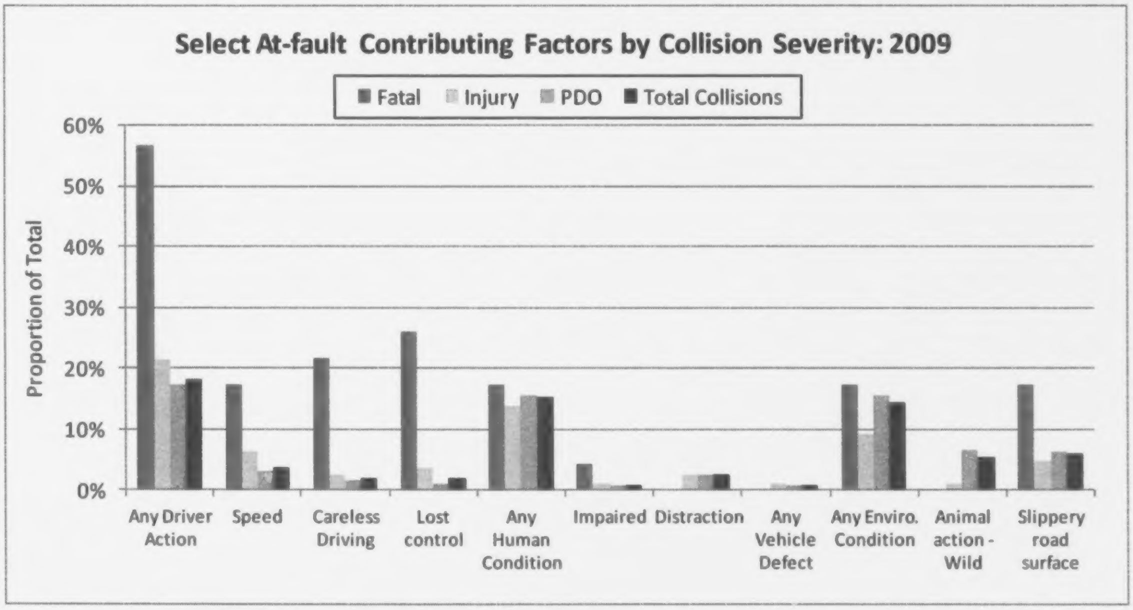
At-fault driver actions were recorded for 18% of the drivers of NSC commercial vehicles involved in traffic collisions in 2009, unchanged from the previous five years (2004 to 2008, on average, 19%). At-fault human conditions were recorded for 4% of the drivers of these vehicles involved in traffic collisions in 2009, also unchanged from the previous five years (2004 to 2008, on average, 4%). Some of the specific at-fault driver action and human condition contributing factors noted for drivers of NSC commercial vehicles involved any traffic collision in 2009 include:

- "Speed" – 4%;
- "Distraction/inattention" – nearly 3%;
- "Following too closely – 2%;
- "Fail to yield right-of-way" – 2%;
- "Careless driving" – 2%;
- "Turning improperly" – 2%; and,
- "Lost control" – 2%;

At-fault vehicle defects were recorded as contributing factors for only 1% of the commercial vehicles involved in a traffic collision in 2009. In the previous five years (2004 to 2008) on average, at-fault vehicle defects were recorded less than 2% of the commercial vehicles involved in traffic collisions.

Environmental conditions were recorded as contributing factors for 14% of the commercial vehicles involved in traffic collisions in 2009 (unchanged from the previous five years, 2004 to 2008, on average). The two most common environmental conditions recorded for commercial vehicles involved in a traffic collision in 2008 were "slippery road surface" (6%) and the action of a wild animal (nearly 6%).

Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity



At-fault driver actions were recorded for more than half (57%) of fatal collisions involving commercial vehicles in 2009.

Table 10-5a Vehicles Involved in Traffic Collisions by Load Type and Collision Severity

Table 10-5a

Vehicles Involved in Traffic Collisions by Load Type and Collision Severity: 2009, 2004-2008 Average

Cargo or Hazardous Load	2009 Collision Severity						2009 Total	% of 2009 Total	2004-2008 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Hazardous Load	1	0.8%	19	0.2%	46	0.1%	**66**	**0.2%**	2	22	52	76	0.1%
Explosives	0	-	8	<0.1%	11	<0.1%	**19**	**<0.1%**	0	4	12	16	<0.1%
Flammable Gases	0	-	8	<0.1%	13	<0.1%	**21**	**<0.1%**	0	7	20	27	<0.1%
Flammable/Combustible Liquids	1	0.8%	1	<0.1%	11	<0.1%	**13**	**<0.1%**	1	5	9	14	<0.1%
Flammable Solids/Dangerous when wet	0	-	0	-	3	<0.1%	**3**	**<0.1%**	0	1	1	2	<0.1%
Oxidizers/Organic peroxides	0	-	0	-	1	<0.1%	**1**	**<0.1%**	0	1	1	2	<0.1%
Poisonous substances/Infectious	0	-	0	-	0	-	**0**	**-**	0	1	1	3	<0.1%
Radioactives	0	-	1	<0.1%	0	-	**1**	**<0.1%**	0	0	0	0	<0.1%
Corrosives	0	-	0	-	3	<0.1%	**3**	**<0.1%**	0	1	3	4	<0.1%
Miscellaneous dangerous substances	0	-	1	<0.1%	4	<0.1%	**5**	**<0.1%**	0	3	4	7	<0.1%
General cargo (non-hazardous)	6	4.8%	89	1.0%	287	0.8%	**382**	**0.9%**	7	115	311	433	0.8%
Other/Unknown Load	0	-	1	<0.1%	5	<0.1%	**6**	**<0.1%**	0	1	4	5	<0.1%
Empty	3	2.4%	54	0.6%	245	0.7%	**302**	**0.7%**	3	73	242	318	0.6%
Load type/status not specified	116	92.1%	9,105	98.2%	33,633	98.3%	**42,854**	**98.3%**	128	11,031	39,255	50,413	98.4%
Total	126	100%	9,268	100%	34,216	100%	**43,610**	**100%**	140	11,242	39,864	51,246	100%

NOTE: Information in Table 10-5a includes all vehicles involved in collisions and is not limited to NSC commercial vehicles.

Table 10-5b NSC Commercial Vehicles Involved in Traffic Collisions by Load Type and Collision Severity

Table 10-5b

NSC Commercial Vehicles Involved in Traffic Collisions by Load Type and Collision Severity: 2009, 2004-2008 Average

Cargo or Hazardous Load	2009 Collision Severity						**2009 Total**	**% of 2009 Total**	2004-2008 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Hazardous Load	1	0.8%	11	0.1%	24	<0.1%	**36**	**<0.1%**	2	10	22	34	<0.1%
Explosives	0	-	3	<0.1%	1	<0.1%	**4**	**<0.1%**	0	1	2	3	<0.1%
Flammable Gases	0	-	6	<0.1%	8	<0.1%	**14**	**<0.1%**	0	2	7	10	<0.1%
Flammable/Combustible Liquids	1	0.8%	1	<0.1%	7	<0.1%	**9**	**<0.1%**	1	3	7	10	<0.1%
Flammable Solids/Dangerous when wet	0	-	0	-	2	<0.1%	**2**	**<0.1%**	0	0	0	1	<0.1%
Oxidizers/Organic peroxides	0	-	0	-	0	-	**0**	**-**	0	0	1	1	<0.1%
Poisonous substances/Infectious	0	-	0	-	0	-	**0**	**-**	0	1	1	1	<0.1%
Radioactives	0	-	0	-	0	-	**0**	**-**	0	0	0	0	-
Corrosives	0	-	0	-	3	<0.1%	**3**	**<0.1%**	0	1	2	3	<0.1%
Miscellaneous dangerous substances	0	-	1	<0.1%	3	<0.1%	**4**	**<0.1%**	0	2	3	5	<0.1%
General cargo (non-hazardous)	6	4.8%	46	0.5%	153	0.4%	**205**	**0.5%**	6	71	186	263	0.5%
Other/Unknown Load	0	-	1	<0.1%	1	<0.1%	**2**	**<0.1%**	0	0	1	1	<0.1%
Empty	1	0.8%	18	0.2%	65	0.2%	**84**	**0.2%**	2	27	78	107	0.2%
Load type/status not specified	15	11.9%	705	7.6%	2,753	8.0%	**3,473**	**8.0%**	13	815	3,030	3,858	7.5%
Total	23	18%	781	8%	2,996	9%	**3,800**	**9%**	22	923	3,317	4,262	8%

NOTE: Information in Table 10-5b is limited to NSC commercial vehicles.

The type of load a vehicle was hauling at the time of a collision is noted for vehicles involved in a traffic collision in Manitoba. While Table 10-5a does not restrict itself to commercial vehicles alone, very few collisions in 2009, and historically, involve vehicles hauling hazardous or dangerous cargo.

As shown in Table 10-5b, in 2009, only 36 of 3,800 NSC commercial vehicles involved in a traffic collision were noted as hauling a "hazardous" load (1%). Five percent of NSC commercial vehicles involved in a traffic collision in 2009 were noted as hauling a "general cargo" load and 2% were noted as being empty at the time of the collision.

Considering only NSC commercial vehicles, in 2009:

- 6 of 23 involved in a fatal collision were hauling a "general" cargo load;
- 1 of 23 involved in a fatal collision were hauling a "hazardous" load;
- 11 of 781 involved in an injury collision were hauling a "hazardous" load; and,
- 24 of 2,996 involved in a PDO collision were hauling a "hazardous" load.

NOTE: For a detailed historical count of vehicles carrying specific loads when involved in a traffic collision in each year from 2004 to 2009, please refer to "*Table 10-7 Historical Summary of Vehicles Involved in Traffic Collisions by Load Type: 2004 to 2009*" at the end of this section.

Table 10-6 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type

Table 10-6

Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type: 2004 to 2009

Vehicle Category	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	**2009 Total**	**% of 2009 Total**
Truck >4,500 kgs Unit Chassis	744	17.8%	647	14.2%	592	14.0%	601	13.7%	516	13.2%	**491**	**12.9%**
Power Unit (Semi-Trailer)	619	14.8%	643	14.1%	592	14.0%	586	13.3%	484	12.3%	**457**	**12.0%**
Truck - Other	2,564	61.3%	3,022	66.1%	2,837	67.0%	2,960	67.3%	2,698	68.8%	**2,673**	**70.3%**
School Bus	90	2.2%	61	1.3%	56	1.3%	75	1.7%	69	1.8%	**64**	**1.7%**
Transit Bus - Urban	68	1.6%	84	1.8%	72	1.7%	66	1.5%	67	1.7%	**75**	**2.0%**
Para-Transit Bus	5	0.1%	9	0.2%	1	<0.1%	6	0.1%	4	0.1%	**4**	**0.1%**
Inter-City Bus	68	1.6%	85	1.9%	61	1.4%	85	1.9%	64	1.6%	**24**	**0.6%**
Bus - Other	26	0.6%	19	0.4%	25	0.6%	21	0.5%	20	0.5%	**12**	**0.3%**
Total	4,184	100%	4,570	100%	4,236	100%	4,400	100%	3,922	100%	**3,800**	**100%**

Table 10-7 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type

Table 10-7
Historical Summary of Traffic Collision Victims (Killed and Injured, Combined) where an NSC Commercial Vehicle is Involved by Vehicle Type: 2004 to 2009

Vehicle Category	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	**2009 Total**	**% of 2009 Total**
Truck >4,500 kgs Unit Chassis	183	16.3%	183	14.1%	173	13.5%	184	14.0%	131	11.4%	**132**	**12.4%**
Power Unit (Semi-Trailer)	171	15.2%	212	16.4%	179	14.0%	183	13.9%	151	13.2%	**130**	**12.2%**
Truck - Other	686	61.0%	811	62.6%	848	66.4%	879	66.8%	792	69.2%	**720**	**67.4%**
School Bus	28	2.5%	20	1.5%	12	0.9%	9	0.7%	13	1.1%	**25**	**2.3%**
Transit Bus - Urban	28	2.5%	41	3.2%	30	2.3%	25	1.9%	35	3.1%	**32**	**3.0%**
Para-Transit Bus	0	-	2	0.2%	0	-	1	<0.1%	1	<0.1%	**4**	**0.4%**
Inter-City Bus	18	1.6%	21	1.6%	31	2.4%	29	2.2%	12	1.0%	**25**	**2.3%**
Bus - Other	10	0.9%	5	0.4%	4	0.3%	6	0.5%	10	0.9%	**0**	**-**
Total	1,124	100%	1,295	100%	1,277	100%	1,316	100%	1,145	100%	**1,068**	**100%**

Table 10-8 Historical Summary of Vehicles Involved in Traffic Collisions by Load Type

Table 10-8

Historical Summary of Vehicles Involved in Traffic Collisions by Load Type: 2004 to 2009

Vehicle Category	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	**2009 Total**	**% of 2009 Total**
Hazardous Load (NET)	98	0.2%	71	0.1%	70	0.1%	60	0.1%	79	0.2%	**66**	**0.2%**
Explosives	20	<0.1%	15	<0.1%	16	<0.1%	14	<0.1%	16	<0.1%	**19**	**<0.1%**
Flammable Gases	33	<0.1%	30	<0.1%	23	<0.1%	26	<0.1%	25	<0.1%	**21**	**<0.1%**
Flammable/Combustible Liquids	21	<0.1%	15	<0.1%	11	<0.1%	8	<0.1%	16	<0.1%	**13**	**<0.1%**
Flammable Solids/Dangerous when wet	3	<0.1%	1	<0.1%	0	-	0	-	4	<0.1%	**3**	**<0.1%**
Oxidizers/Organic peroxides	3	<0.1%	1	<0.1%	5	<0.1%	0	-	1	<0.1%	**1**	**<0.1%**
Poisonous substances/Infectious	4	<0.1%	1	<0.1%	2	<0.1%	3	<0.1%	4	<0.1%	**0**	**-**
Radioactives	0	-	0	-	0	-	1	<0.1%	0	-	**1**	**<0.1%**
Corrosives	4	<0.1%	5	<0.1%	3	<0.1%	2	<0.1%	5	<0.1%	**3**	**<0.1%**
Miscellaneous dangerous substances	10	<0.1%	3	<0.1%	10	<0.1%	6	<0.1%	8	<0.1%	**5**	**<0.1%**
General cargo (non-hazardous)	430	0.8%	472	0.9%	411	0.8%	452	0.9%	402	0.9%	**382**	**0.9%**
Other/Unknown Load	4	<0.1%	7	<0.1%	6	<0.1%	2	<0.1%	6	<0.1%	**6**	**<0.1%**
Empty	312	0.5%	303	0.6%	283	0.5%	311	0.6%	383	0.9%	**302**	**0.7%**
Not applicable/Non-commercial vehicle	56,375	98.5%	53,490	98.3%	50,850	98.4%	47,666	98.2%	43,685	97.9%	**42,854**	**98.1%**
Total	57,219	100%	54,414	100%	51,690	100%	48,551	100%	44,634	100%	**43,676**	**100%**

NOTE: Not limited to NSC Vehicles only - i.e., all vehicle types are included, except pedestrians.

SECTION 11 – Off-Road Vehicle Collisions

Introduction

This section counts the number of off-road vehicle (ORV) collisions in Manitoba and provides detail for collisions of different severity, fatal, injury and property damage only (PDO). Historical information regarding the number of ORV collisions, the number of victims, the number of vehicles and the number of drivers involved over the ten year period 2000 to 2009 is presented. Details are provided for 2009 ORV collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Key Highlights

In 2009, there were 126 off-road vehicle collisions, involving 102 victims, 153 vehicles, and 148 drivers. Of these:

- 10 were fatal collisions, with 10 victims killed, involving 10 vehicles and 10 drivers;
- 82 were injury collisions, with 92 victims injured, 94 vehicles involved and 93 drivers;
- 34 were PDO collisions, involving 49 vehicles and 45 drivers.

ORV collisions were most likely to occur:

- In winter months (December to March) representing 61 of 126 collisions (48%), with a smaller spike during summer (May to August), with 41 collisions (33% of the total).
- On weekends (all day Friday, Saturday and Sunday) representing 93 of 126 (74%) ORV collisions.
- During daylight, representing 82 of 126 (65%) ORV collisions.
- In the Eastern Region of Manitoba, representing 50 of 126 (40%) ORV collisions.
- In the 25 to 54 year old driver age group, representing 74 of 148 (50%) drivers involved in ORV collisions.

Notwithstanding the overall collision trends, **fatal** ORV collisions were most likely to occur:

- In winter months (December to March), representing 7 of 10 (70%) fatal ORV collisions.
- During day and darkness, each representing 4 of 10 (40%), and therefore cumulatively accounting for 8 of 10 (80%) fatal ORV collisions.
- In the Eastern and Northern Regions of Manitoba, representing 6 of 10 (60%) fatal ORV collisions.
- In the 25 to 54 year old driver age group, representing 6 of 10 (60%) drivers in fatal ORV collisions.

Major Elements Examined

Counts of off-road vehicle (ORV) collisions in Manitoba for 2009 and previous years are taken from Traffic Accident Reports completed by law enforcement agencies and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, for fatal collisions, for injury collisions and for property damage only (PDO) collisions. As these collisions occur primarily outside of roadways and road rights-of-way, they are generally not included in the Traffic Accident Database. However, some ORV collisions are included in the Traffic Accident Database; therefore, statistics between this and other sections of this report are not additive.

Collisions, victims, vehicles and drivers are presented separately at the beginning of this section with historical counts provided for the years 1999 through 2009. The remainder of this section explores ORV collisions occurring in 2009 and provides average counts of collisions for the time period 2004 to 2008 (or 2005 to 2008, where statistics are unavailable in other years) as a comparison to 2009 collisions.

While it does not impact ORV collision statistics as much as other motor vehicle collision statistics, it is important to note that the number of fatal or injury collisions is not equal to the number of fatal or injured victims as each collision can result in multiple victims. Likewise, the number of vehicles involved is not necessarily equal to the number of drivers involved as a driverless vehicle could be involved in a collision.

No statistics are calculated for relative involvement for off-road vehicles, as they are for traffic collisions in other sections of this report. This is due to the fact that ORVs are often not required to be registered, making base populations difficult to determine, and similarly, riders/operators often do not need to be licensed, making establishing a base population difficult to determine.

"Drivers" in this section refers to the number of drivers of off-road vehicles involved in collisions. It excludes pedestrians, other types of vehicles, and driverless vehicles. In ORV collisions, there are few driverless vehicles involved, but still some.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report. The terms 'fatality' and 'killed' are used interchangeably in this report.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2003 to 2007. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

When reviewing the "Contributing Factors" for a traffic collision, the reader is cautioned to note that more than one contributing factor can be recorded for each collision. The total count of contributing factors noted will add to more than the number of collisions, vehicles or victims in those crashes.

Terms and Definitions

"Reportable Collision"

- Motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report (TAR) for the collision. This report deals with these reportable collisions and the TARs arising from them.

"Off-road Vehicle (ORV)"

- One of several vehicle types designed for off-road use. It includes snowmobiles, off-road motorcycles, all-terrain vehicles (ATVs), amphibious vehicles, dune/sport buggies, and 4-wheel drive vehicles operated off-road.

"ATV"

- All Terrain Vehicle; includes vehicles with 3, 4 and 6 wheels.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal (i.e., victims injured but not killed) injury sustained.

"Killed"

- The casualty type "killed" indicates where the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates where the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Light Condition"

- Describes the light conditions at the scene of the accident, including:
    - Day – the light conditions which normally occur between one half hour after sunrise and one half hour before sunset;
    - Dawn – the light conditions which normally occur between one half hour before sunrise and one half hour after sunrise;
    - Dusk – the light conditions which normally occur between one half hour before sunset and one half hour after sunset;
    - Dark – the light conditions which normally occur between one half hour after sunset and one half hour before sunrise; and,
    - Artificial lighting – artificial illumination devices were functioning at the accident site under light conditions which normally occur between one half hour after sunset and one half hour before sunrise.

"Weather Condition"

- Describes the weather conditions prevalent at the time of the accident, including:
    - Clear – bright conditions, without precipitation or airborne matter, are recorded as clear;
    - Cloudy – dull, overcast conditions, without precipitation or airborne matter, are recorded as cloudy;
    - Raining;
    - Snowing;
    - Fog or Mist – airborne matter, of natural origin, which obscures visibility;
    - Smoke or Dust – airborne matter, of a natural or artificial origin, which obscures visibility;
    - Freezing Rain / Sleet / Hail – freezing rain, sleet or hail (self explanatory);
    - Drifting Snow – snow drifting on or above roadway, which obscures visibility of the roadway, road markings, traffic devices or roadway fixtures; and,
    - Strong Winds – used if wind was a contributing factor in the accident.

"Region"

- Manitoba Infrastructure and Transportation is served by 5 regional office locations, each responsible for a geographic region (for boundaries, see Map 11-1). Regions are used in this section to indicate in which region a collision occurred.

"Contributing Factor"

- Refers to circumstances or factors that the reporting police officer recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environment condition. More detail regarding "contributing factors" can be found in "*Section 9 Contributing Factors*" of this report.

"At-fault Contributing Factor"

- A contributing factor that the reporting police officer recorded as having contributed to the collision or its severity where the factor is not "driving properly" or "apparently normal".

Table 11-1 Ten Year Summary of Off-Road Vehicle Collisions

Table 11-1
Historical Summary of Off-Road Vehicle Collisions: 1999 to 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	**2009**	2004-08 Average
Total Collisions	110	116	113	100	123	139	162	176	132	137	**126**	149
Fatal	8	9	9	4	7	7	9	9	6	10	**10**	8
Injury	76	64	72	62	80	81	104	107	78	75	**82**	89
PDO	26	43	32	34	36	51	49	60	48	52	**34**	52
Total Victims	104	89	99	91	109	107	131	142	103	106	**102**	118
Killed	8	10	10	5	7	7	9	9	6	11	**10**	8
Injured	96	79	89	86	102	100	122	133	97	95	**92**	109
Total Vehicles Involved	142	164	151	129	149	188	206	228	174	166	**153**	192
Fatal	9	17	13	8	8	9	11	12	8	13	**10**	11
Injury	99	85	95	73	92	111	134	138	98	89	**94**	114
PDO	34	62	43	48	49	68	61	78	68	64	**49**	68
Total Drivers Involved	139	163	141	127	148	188	206	228	174	166	**148**	192
Fatal	9	15	13	7	8	9	11	12	8	13	**10**	11
Injury	97	84	87	73	91	111	134	138	98	89	**93**	114
PDO	33	64	41	47	49	68	61	78	68	64	**45**	68

In 2009, there were 126 off-road vehicle collisions, involving 102 victims, 153 vehicles, and 148 drivers. Of these:

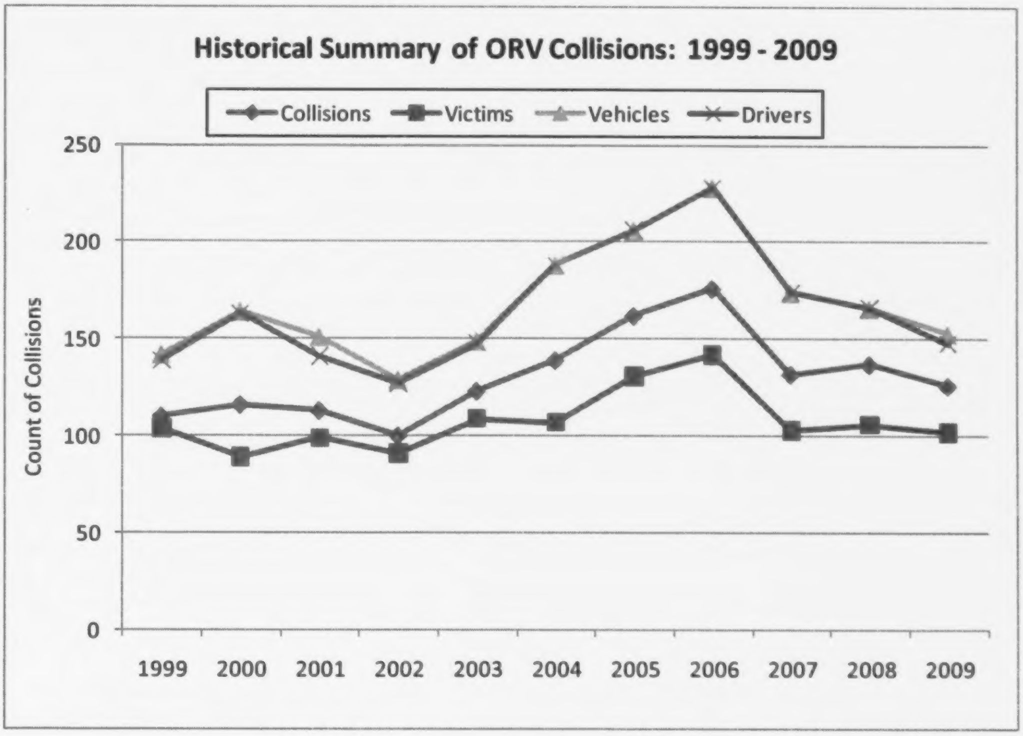
- 10 were fatal collisions, with 10 victims killed, involving 10 vehicles and 10 drivers;
- 82 were injury collisions, with 92 victims injured, 94 vehicles involved and 93 drivers;
- 34 were PDO collisions, involving 49 vehicles and 45 drivers.

Total ORV collisions in 2009 are 8% lower than 2008 and 13% lower than the average number of collisions in the previous five years (2004 to 2008). Compared to the previous five year average, in 2009:

- ORV collision victims are down 12%;
- There were 2 more victims killed;
- ORVs involved decreased by 17%; and,
- Drivers involved in ORV collisions decreased by 20%.

While not always the case, there were an equal number of drivers and vehicles involved in ORV collisions between 2004 and 2008.

Figure 11-1 Historical Summary of ORV Collisions



The numbers of ORV collisions and victims in those collisions have both decreased slightly in 2009 from 2008. The numbers of vehicles and drivers involved in those collisions have also decreased. In 2009, the numbers are down from a peak in 2006. Prior to then, there had been steady increases since 2002. Total collisions, vehicles and drivers involved in 2009 are slightly higher than they were in 1999, while the number of victims in 2009 is slightly lower than in 1999.

Table 11-2 Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type

Table 11-2

Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type: 2009, 2004-2008 Average

	2009					2004-08 Average					% Change 2009 to 2004-08 Average				
	Snowmobile	ATV	Motorcycle	Other*	**Total**	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total
Total Victims	35	51	5	11	**102**	51	39	6	21	118	-30.8%	29.4%	-21.9%	-48.6%	-13.4%
Killed	6	3	0	1	**10**	3	3	1	1	8	100.0%	-6.3%	-100.0%	-16.7%	19.0%
Injured	29	48	5	10	**92**	48	36	5	20	109	-39.1%	32.6%	-7.4%	-50.5%	-15.9%
Total Vehicles Involved	64	57	6	26	**153**	95	51	9	37	192	-32.8%	11.3%	-31.8%	-30.1%	-20.5%
Fatal	6	3	0	1	**10**	3	4	1	2	11	76.5%	-16.7%	-100.0%	-58.3%	-5.7%
Injury	33	42	6	13	**94**	54	34	7	19	114	-38.9%	23.5%	-11.8%	-32.3%	-17.5%
PDO	25	12	0	12	**49**	38	14	1	16	68	-33.9%	-11.8%	-100.0%	-23.1%	-27.7%
Total Drivers Involved	63	57	6	23	**148**	95	51	9	37	192	-33.8%	11.3%	-31.8%	-40.9%	-23.1%
Fatal	6	3	0	1	**10**	3	4	1	2	11	76.5%	-16.7%	-100.0%	-58.3%	-5.7%
Injury	33	42	6	13	**93**	54	34	7	19	114	-38.9%	23.5%	-11.8%	-37.5%	-18.4%
PDO	24	12	0	9	**45**	38	14	1	16	68	-36.5%	-11.8%	-100.0%	-42.3%	-33.6%

* 'Other' includes: vehicles not registered as an off-road vehicle, dune /sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

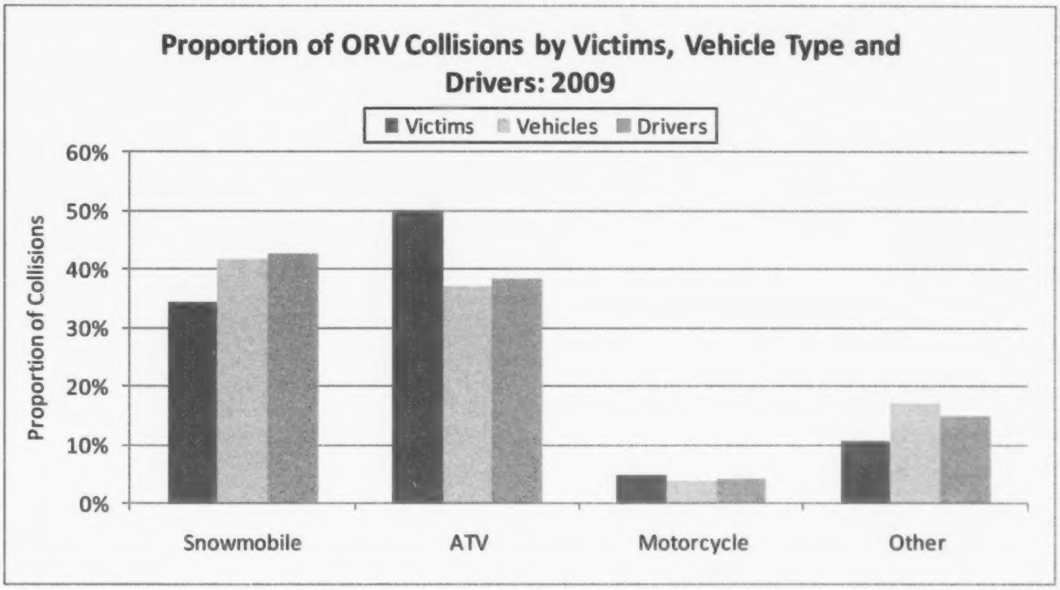
In 2009, a total of 153 vehicles were involved in off-road collisions, including:

- 64 snowmobiles and 63 snowmobile drivers, resulting in 35 victims, including 6 fatalities;
- 57 ATVs and ATV drivers, resulting in 51 victims including 3 fatalities;
- 6 motorcycles and motorcycle drivers, resulting in 5 victims, no one was killed.
- 26 'Other' ORVs and 22 drivers of those vehicles, resulting in 11 total victims, including 1 fatality.

Compared to the previous five years (2004 to 2008) on average, in 2009:

- Snowmobile collisions are well below average across all categories - victims are down by 31%, while vehicles and drivers involved are down by 33% and 34% respectively.
- ATV collisions increased – victims are up by 29%, vehicles and drivers are up by 11%.
- Motorcycle collisions are below average across all categories – the total number of victims (5) is one less than average; the total count of vehicles and drivers involved (6 each) is three less than average.
- 'Other' vehicle collisions decreased – victims are down by 49%, vehicles and drivers are down by 30% and 41% respectively.

Figure 11-2 Proportion of ORV Collisions by Victims, Vehicle Type and Drivers



In 2009, snowmobiles accounted for the largest proportion of drivers and vehicles involved in ORV collisions, followed by ATVs. However, ATV collisions account for a greater proportion of victims (including victims killed). 'Other' ORVs and motorcycles operated off-road account for the third largest and the smallest proportions, respectively, of victims, vehicles and drivers involved in ORV collisions.

Table 11-3 ORVs Involved in Collisions by Vehicle Type and Active Registration

Table 11-3
ORVs Involved in Collisions by Vehicle Type and Active Registration: 2009, 2005-2008 Average

Vehicle Type	Active Registration			Total	% Known to be Registered**	2005-08 Average	% Change 2009 to 2005-08 Average
	Yes	No	Not Stated				
Snowmobile	45	3	16	64	70.3%	129	-50.5%
ATV	33	7	17	57	57.9%	68	-16.6%
Motorcycle	3	1	2	6	50.0%	12	-48.6%
Other*	21	0	5	26	80.8%	49	-46.6%
Total	102	11	40	153	66.7%	258	-40.7%

* 'Other' includes: vehicles not registered as an off-road vehicle, dune /sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

** The "% known to be registered" is calculated as active registrations ('Yes' in the table) as a proportion of total ORVs in the category. "Not stated" is included in the total but are not considered as known to be registered.

A substantial number of off-road vehicles involved in collisions are not registered (33%). In 2009, 102 of 153 off-road vehicles involved in collisions (67%) had active registrations at the time of the collision. At the time of the collision in 2009:

- 45 of 64 snowmobiles (70%) had active registrations;
- 33 of 57 ATVs (58%) had active registrations;
- 3 of 6 motorcycles (50%) had active registrations; and
- 21 of 26 'other' vehicles (81%), including on-road vehicles operating off-road at the time, had active registrations.

NOTE: 'Active registration' has only been compiled in the ORV collisions database since 2005. Therefore, historical averages are presented for the four-year period between 2005 and 2008 only.

NOTE: For a detailed historical count of ORV vehicle types involved in collisions occurring in each year from 2005 to 2009, please refer to "*Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration: 2005 to 2009*" at the end of this section.

Table 11-4 Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity

Table 11-4
Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity: 2009, 2005-2008 Average

Active Driver's Licence	Collision Severity						**2009 Total**	**% of 2009 Total**	2005-08 Average	% Change 2009 to 2005-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Yes	2	20.0%	70	75.3%	31	68.9%	**103**	**69.6%**	137	-25.0%
No	1	10.0%	9	9.7%	7	15.6%	**17**	**11.5%**	38	-55.0%
Not Stated	7	70.0%	14	15.1%	7	15.6%	**28**	**18.9%**	15	86.7%
Not Applicable	0	-	0	-	0	-	**0**	**-**	4	-100.0%
Total	10	100%	93	100%	45	100%	**148**	**100%**	194	-23.5%

Unlicensed drivers (including operators too young to be licensed) account for a large proportion of ORV collisions. In 2009, nearly 70% of drivers in ORV collisions had active driver's licenses; nearly 12% did not.

- Fatal collisions: 2 of 10 drivers involved were licensed and 1 was unlicensed (7 of 10 not stated).
- Injury collisions: 75% of drivers were licensed and 10% were unlicensed (15% not stated).
- PDO collisions: 69% of drivers were licensed and nearly 16% were unlicensed (nearly 16% not stated).

Table 11-5 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity

Table 11-5
ORV Collisions by Month of Occurrence and Collision Severity: 2009, 2004-2008 Average

Month	Collision Severity						**2009 Total**	**% of 2009 Total**	2004-08 Average	% Change 2009 to 2004-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
January	4	40.0%	10	12.2%	9	26.5%	**23**	**18.3%**	20	13.9%
February	0	-	9	11.0%	7	20.6%	**16**	**12.7%**	23	-30.4%
March	2	20.0%	5	6.1%	3	8.8%	**10**	**7.9%**	22	-54.5%
April	0	-	5	6.1%	1	2.9%	**6**	**4.8%**	7	-16.7%
May	0	-	4	4.9%	2	5.9%	**6**	**4.8%**	11	-44.4%
June	0	-	11	13.4%	3	8.8%	**14**	**11.1%**	9	52.2%
July	0	-	12	14.6%	2	5.9%	**14**	**11.1%**	10	42.9%
August	1	10.0%	6	7.3%	0	-	**7**	**5.6%**	10	-28.6%
September	2	20.0%	5	6.1%	0	-	**7**	**5.6%**	6	12.9%
October	0	-	5	6.1%	1	2.9%	**6**	**4.8%**	6	3.4%
November	0	-	3	3.7%	2	5.9%	**5**	**4.0%**	4	25.0%
December	1	10.0%	7	8.5%	4	11.8%	**12**	**9.5%**	21	-43.4%
Total	10	100%	82	100%	34	100%	**126**	**100%**	149	-15.5%

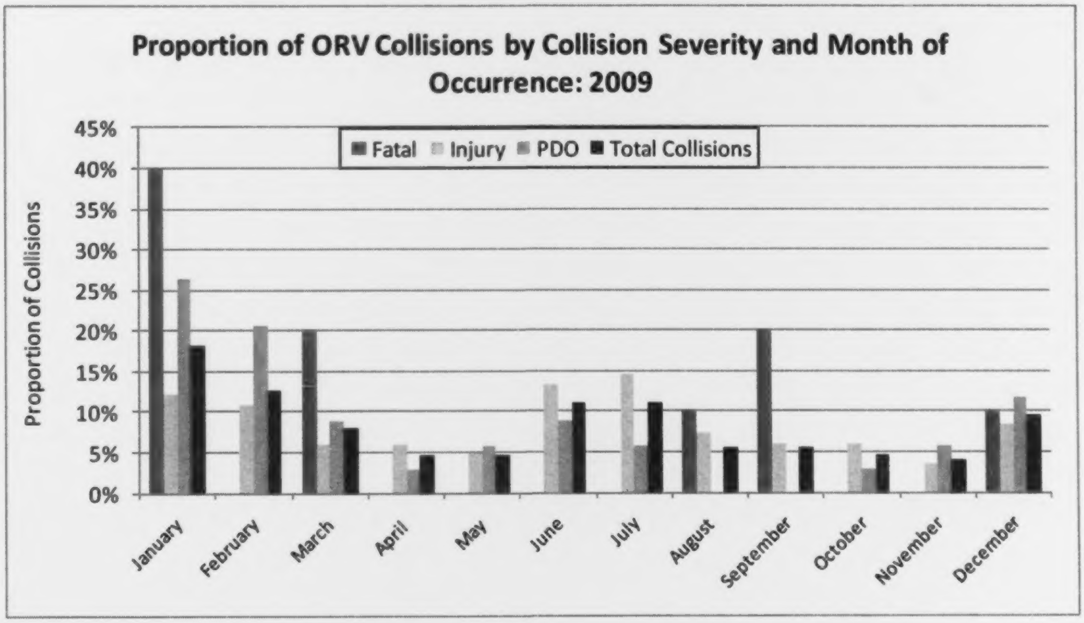
Winter and summer months account for the most ORV collisions in 2009. January (18%) and February (13%) combined account for nearly a third of ORV collisions while June and July (11% each) account for nearly a quarter.

In the previous five years (2004 to 2008) on average, ORV collisions occurred with much greater frequency in the winter months, including December through to March, than at any other time of the year. Comparing 2009 to the previous five years on average:

- December has seen a decrease (12 in 2009 compared to 21 in the previous five years);
- February has seen a decrease in ORV collisions (count of 16 in 2009 compared to 23 in the previous five years on average);
- March has seen a decrease (10 in 2009 compared to 22 in the previous five years);
- June has seen an increase (14 in 2009 compared to 9 in the previous five years); and,
- July has seen an increase (14 in 2009compared to 10 in the previous five years).

NOTE: For a detailed historical count of ORV collisions by month of occurrence in each year from 2003 to 2009, please refer to "*Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence: 2003 to 2009*" at the end of this section.

Figure 11-3 Distribution of Total Off-Road Vehicle Collisions by Month of Occurrence



When collisions are broken out by severity, seasonal differences are apparent. The winter months (December through March) account for 48% of total collisions, and 7 of 10 fatal collisions. On the other hand, the months of June through August account for 28% of total collisions (35 of 126) but only 1 fatal collision.

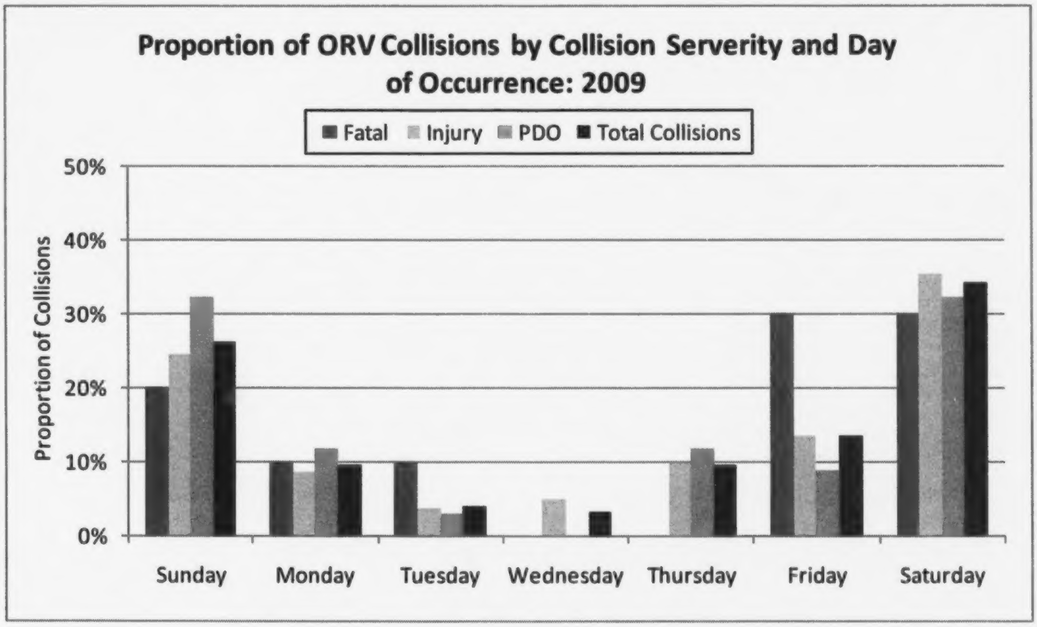
Table 11-6 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity

Table 11-6
ORV Collisions by Day of Occurrence and Collision Severity: 2009, 2004-2008 Average

Day	Collision Severity						**2009 Total**	**% of 2009 Total**	2004-08 Average	% Change 2009 to 2004-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Sunday	2	20.0%	20	24.4%	11	32.4%	**33**	**26.2%**	40	-17.5%
Monday	1	10.0%	7	8.5%	4	11.8%	**12**	**9.5%**	11	7.1%
Tuesday	1	10.0%	3	3.7%	1	2.9%	**5**	**4.0%**	10	-50.0%
Wednesday	0	-	4	4.9%	0	-	**4**	**3.2%**	12	-67.7%
Thursday	0	-	8	9.8%	4	11.8%	**12**	**9.5%**	12	-3.2%
Friday	3	30.0%	11	13.4%	3	8.8%	**17**	**13.5%**	21	-20.6%
Saturday	3	30.0%	29	35.4%	11	32.4%	**43**	**34.1%**	41	5.9%
Total	10	100%	82	100%	34	100%	**126**	**100%**	149	-15.5%

Weekends, including all day Friday, Saturday and Sunday, account for most ORV collisions. In 2009, nearly 14% of ORV collisions occurred on Friday, 34% on Saturday and 26% on Sunday. Monday through Thursday account just over a quarter (26%) of ORV collisions.

Figure 11-4 Proportion of ORV Collisions by Collision Severity and Day of Occurrence



Weekends, including all day Friday, Saturday and Sunday, account for 80% of all fatal ORV collisions in 2009. Sunday accounts for 20% of fatal ORV Collisions and Friday and Saturday account for 30% each. Saturday and Sunday equally contribute to the highest proportion of PDO collisions involving ORVs.

Table 11-7 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity

Table 11-7
ORV Collisions by Time of Occurrence and Collision Severity: 2009, 2004-2008 Average

Time	Collision Severity						**2009 Total**	**% of 2009 Total**	2004-08 Average	% Change 2009 to 2004-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
00:00 - 02:59	0	-	3	3.7%	1	2.9%	**4**	**3.2%**	10	-41.2%
03:00 - 05:59	0	-	1	1.2%	1	2.9%	**2**	**1.6%**		
06:00 - 08:59	0	-	1	1.2%	0	-	**1**	**0.8%**	17	-23.5%
09:00 - 11:59	2	20.0%	10	12.2%	0	-	**12**	**9.5%**		
12:00 - 14:59	2	20.0%	22	26.8%	16	47.1%	**40**	**31.7%**	68	-9.1%
15:00 - 17:59	2	20.0%	13	15.9%	7	20.6%	**22**	**17.5%**		
18:00 - 20:59	2	20.0%	20	24.4%	8	23.5%	**30**	**23.8%**	45	-8.9%
21:00 - 23:59	1	10.0%	9	11.0%	1	2.9%	**11**	**8.7%**		
Not Stated	1	10.0%	3	3.7%	0	-	**4**	**3.2%**	9	-54.5%
Total	10	100%	82	100%	34	100%	**126**	**100%**	149	-15.5%

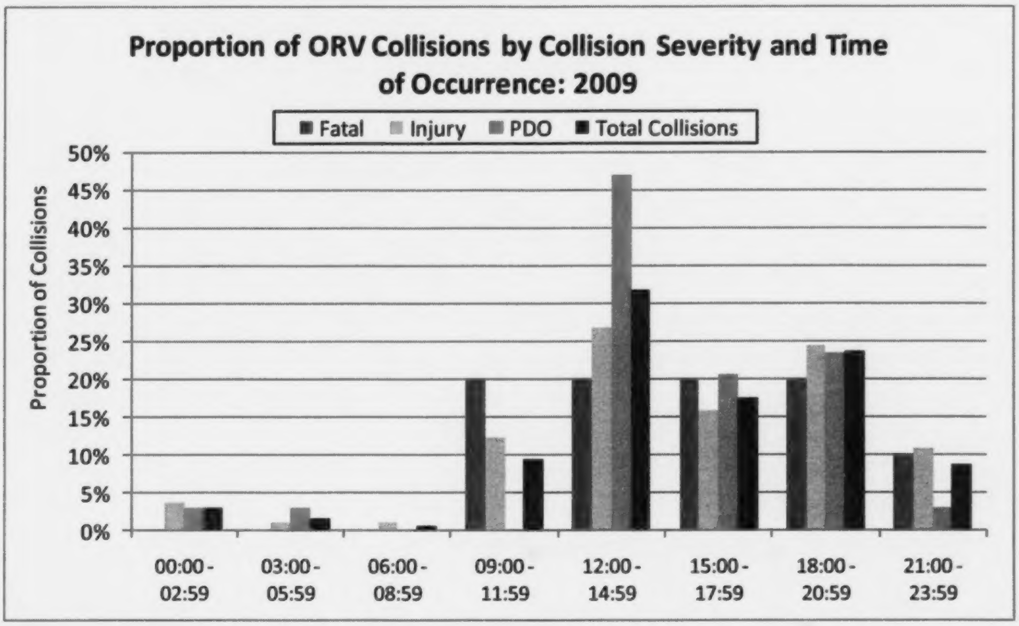
The majority of off-road collisions occur during the afternoon and early evening. In 2009, nearly half of all ORV vehicle collisions occurred between noon and 6 p.m. (12:00 to 14:59 – 32%; 15:00 to 17:59 – 18%), and nearly another quarter occurred between 6 p.m. and 9 p.m. (18:00 to 20:59 – 24%)

Compared to the previous five years (2004 to 2008) on average, there were proportionately more afternoon and evening ORV collisions and fewer early morning ORV collisions in 2009.

- Afternoon (12:00 to 17:59) – 49% in 2009; 46% average in previous five years.
- Evening (18:00 to 23:59) – 33% in 2009; 30% average in previous five years.
- Early morning (00:00 to 05:59) – 5% in 2009; 7% average in previous five years.

NOTE: The methodology for counting collisions by time of occurrence was changed in 2008. The new methodology uses three-hour rather than six-hour time periods. Historical data (2004 to 2008) is presented using the six-hour time periods.

Figure 11-5 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence



Collision severity varies substantially throughout the day. In 2009, fatal collisions were equally distributed between 9 a.m. and 9 p.m. The proportion of fatal collisions that occurred late in the evening (9 p.m. to midnight) was half of what occurs in any other three hour window during the day. Injury collisions occur mostly between 9 a.m. and 9 p.m. PDO collisions picked between noon and 3 p.m. and levelled off into the evening.

Table 11-8 Off-Road Vehicle Collisions by Light Condition and Collision Severity

Table 11-8
ORV Collisions by Light Condition and Collision Severity: 2009, 2005-2008 Average

Light Condition	Collision Severity						2009 Total	% of 2009 Total	2005-08 Average	% Change 2009 to 2005-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Day	4	40.0%	53	64.6%	25	73.5%	**82**	**65.1%**	96	-14.4%
Dawn	1	10.0%	1	1.2%	0	-	**2**	**1.6%**	1	60.0%
Dusk	0	-	10	12.2%	2	5.9%	**12**	**9.5%**	10	26.3%
Dark	4	40.0%	14	17.1%	6	17.6%	**24**	**19.0%**	42	-42.9%
Artificial Light	1	10.0%	4	4.9%	1	2.9%	**6**	**4.8%**	2	300.0%
Not Stated	0	-	0	-	0	-	**0**	**-**	2	-100.0%
Total	10	100%	82	100%	34	100%	**126**	**100%**	152	-17.0%

The majority of ORV collisions occur during daylight conditions, from a half hour after sunrise to a half hour before sunset. In 2009, these accounted for 82 collisions (65% of the total). An additional 24 collisions (19%) occurred during darkness. Twelve collisions (10%) occurred during dusk. Two collisions occurred during dawn, and six collisions occurred in artificial lighting conditions.

Compared to the previous five years (2004 to 2008) on average, there was a substantial drop in 2008 in the number of ORV collisions occurring during darkness (24 in 2009 compared to 42 in 2005-2007, a 43% decline).

NOTE: 'Light Condition' has only been compiled for ORV collisions since 2005. Historical averages are presented for the four-year period between 2005 and 2008 only.

Figure 11-6 Proportion of ORV Collisions by Collision Severity and Light Condition

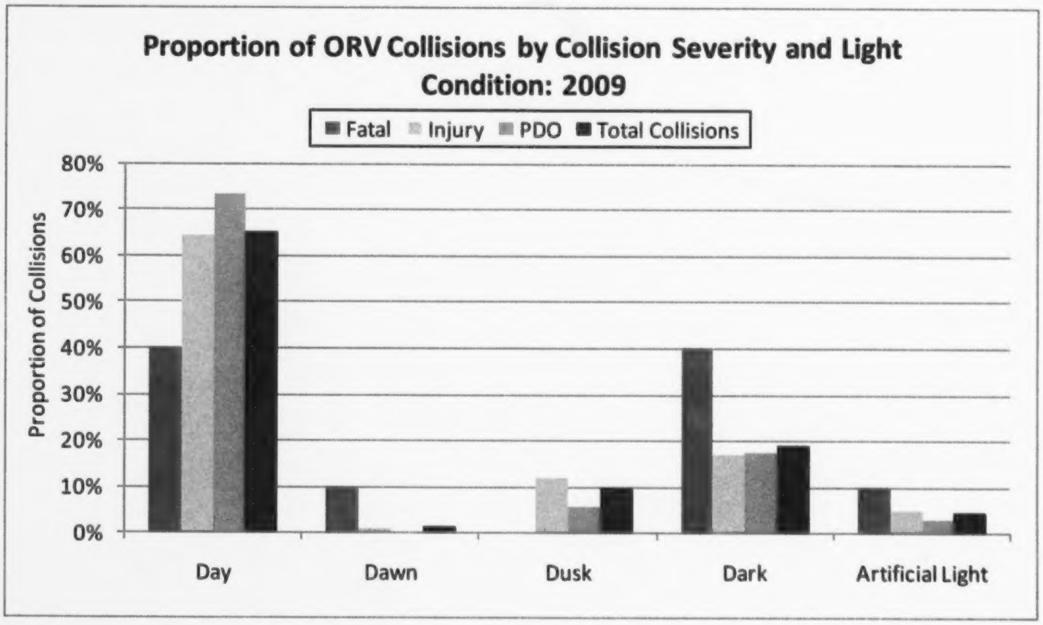


Table 11-9 ORV Collisions by Weather Condition and Collision Severity

Table 11-9
ORV Collisions by Weather Condition and Collision Severity: 2009, 2005-2008 Average

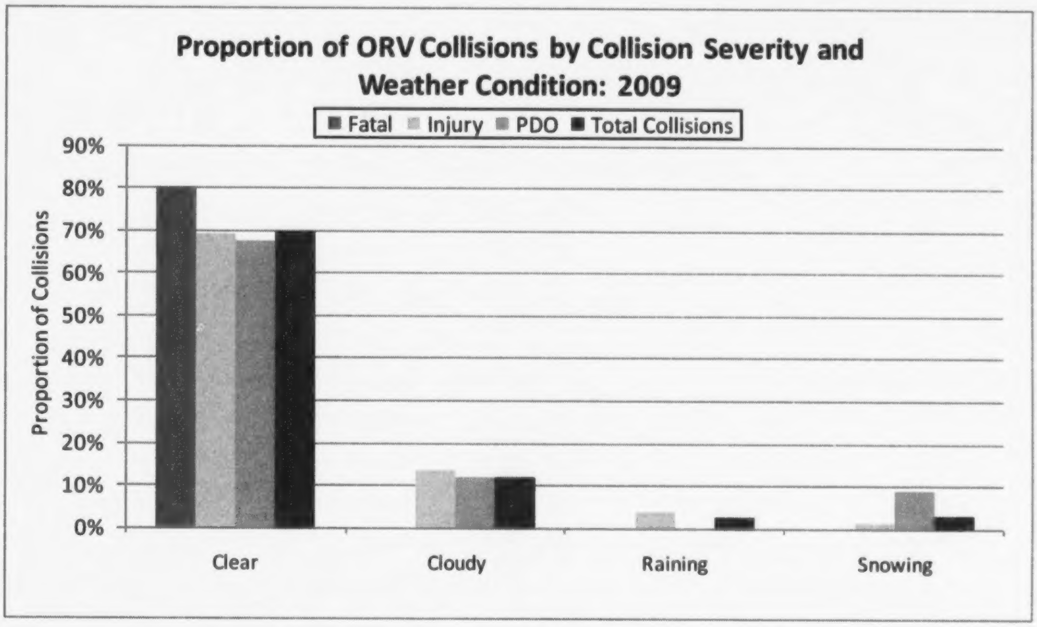
Weather Condition	Collision Severity						**2009 Total**	**% of 2009 Total**	2005-08 Average	% Change 2009 to 2005-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Clear	8	80.0%	57	69.5%	23	67.6%	**88**	**69.8%**	111	-20.5%
Cloudy	0	-	11	13.4%	4	11.8%	**15**	**11.9%**	22	-32.6%
Raining	0	-	3	3.7%	0	-	**3**	**2.4%**	4	-14.3%
Snowing	0	-	1	1.2%	3	8.8%	**4**	**3.2%**	5	-20.0%
Fog/Mist	0	-	1	1.2%	0	-	**1**	**0.8%**	2	-42.9%
Smoke/Dust	0	-	1	1.2%	0	-	**1**	**0.8%**	0	-
Drifting Snow	0	-	0	-	0	-	**0**	**-**	2	-100.0%
Strong Winds	0	-	3	3.7%	1	2.9%	**4**	**3.2%**	2	128.6%
Not Stated	2	20.0%	5	6.1%	3	8.8%	**10**	**7.9%**	5	110.5%
Total	10	80%	82	94%	34	91%	**126**	**92%**	152	-17.0%

The largest proportion of off-road vehicle collisions occur when weather conditions are clear. In 2009, 88 collisions (70% of the total) occurred in clear weather conditions. Another 15 collisions (12%) occurred in cloudy weather. Four collisions (3%) occurred in snowing weather and strong winds, each.

Compared to the previous four year period (2005 to 2008) on average, ORV collisions in clear conditions were down in 2009 (88 compared to an average of 111), and collisions in cloudy weather decreased substantially (15 compared to an average of 22). Collisions recorded in strong winds doubled (4 compared to an average of 2), while no collisions occurred in drifting snow in 2009.

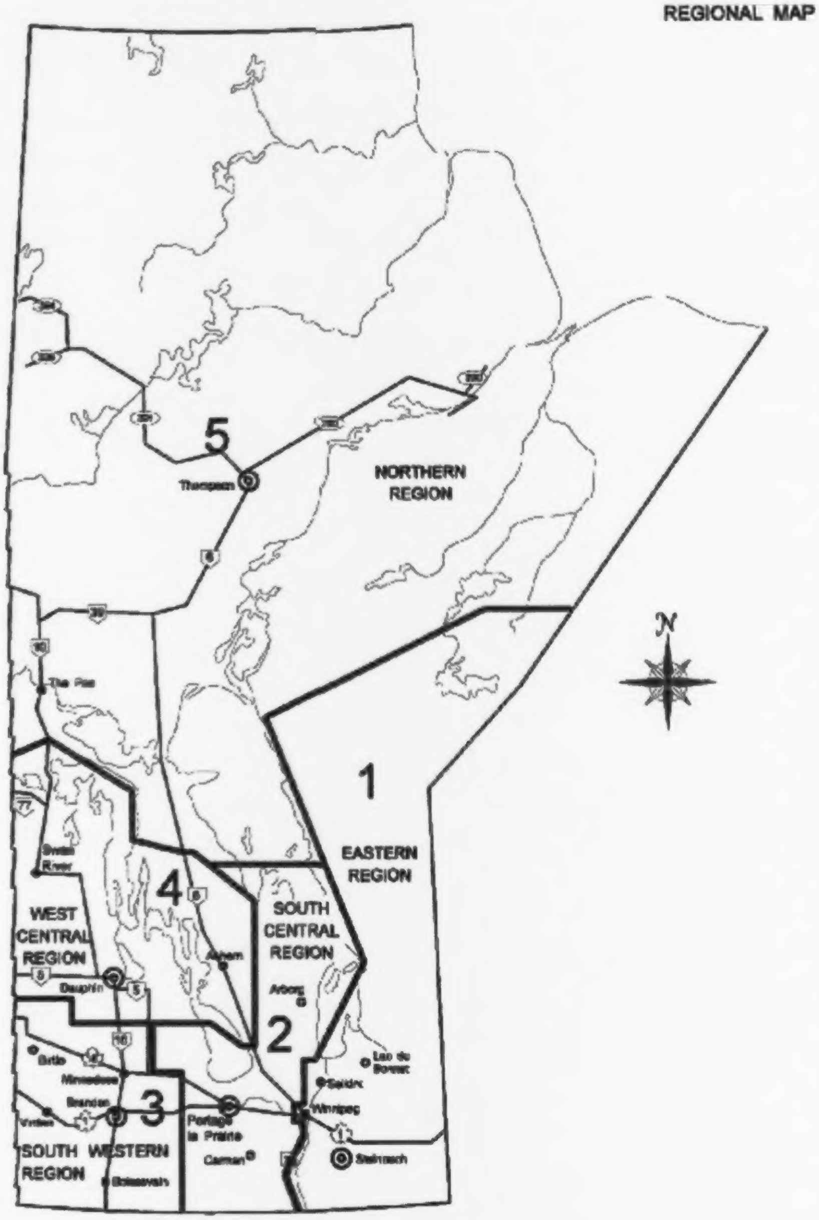
NOTE: 'Weather Condition' has only been compiled for ORV collisions since 2005. Historical averages are presented for the four-year period between 2005 and 2008 only.

Figure 11-7 Proportion of ORV Collisions by Collision Severity and Weather Condition



In 2009, virtually all ORV collisions occurred in clear weather collisions, regardless of accident severity. No fatal ORV collision occurred in weather conditions other than "clear", although the conditions in 2 of the 10 fatal ORV collisions were not specified on the traffic accident report.

Map 1-1 Manitoba Infrastructure and Transportation (MIT) Regions


REGIONAL MAP
5
Thompson
NORTHERN REGION
N
The Pas
1
EASTERN REGION
Swan River
4
WEST CENTRAL REGION
SOUTH CENTRAL REGION
Dauphin
Ashern
Arborg
2
Lac du Bonnet
Selkirk
Birtle
Minnedosa
Brandon
Virden
3
Winnipeg
Portage la Prairie
SOUTH WESTERN REGION
Carman
Steinbach
Boissevain

Source: Manitoba Infrastructure and Transportation, Traffic Engineering

This map shows the boundaries of Manitoba Infrastructure and Transportation (MIT) regions and regional office locations. Regional Offices are responsible for service delivery and management of MIT programs, as indicated in the department's annual report[4]. Off-road vehicle collisions are reported by location within these regions.

---

[4] 2007/2008 Annual Report for Manitoba Infrastructure and Transportation.

Table 11-10 ORV Collisions by MIT Regions and Collision Severity

Table 11-10
ORV Collisions by MIT Regions and Collision Severity: 2009, 2005-2008 Average

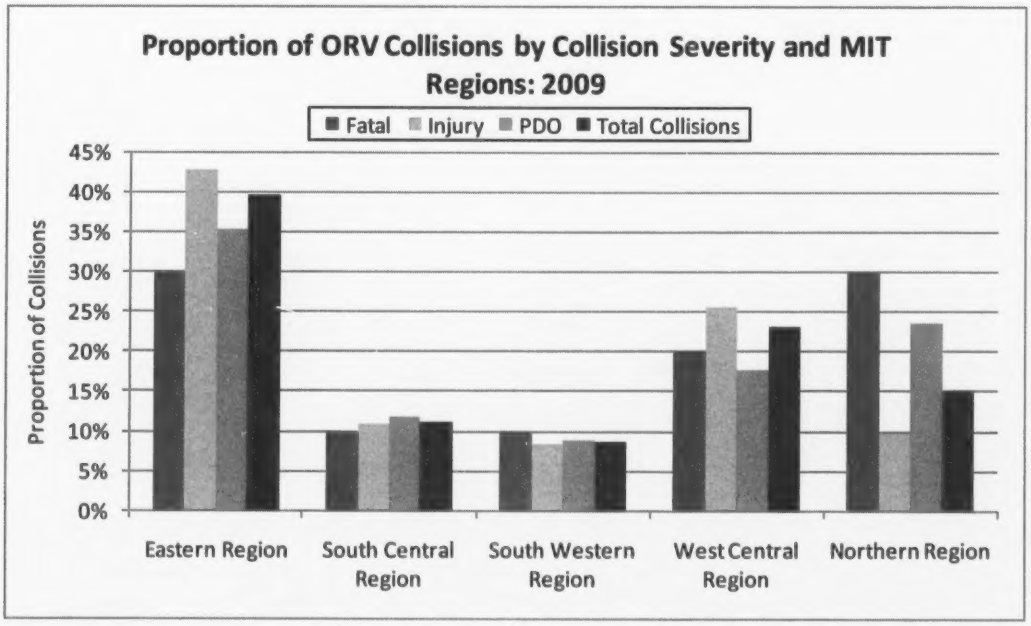
Region	Collision Severity						**2009 Total**	**% of 2009 Total**	2005-08 Average	% Change 2009 to 2005-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Eastern Region	3	30.0%	35	42.7%	12	35.3%	**50**	**39.7%**	66	-24.0%
South Central Region	1	10.0%	9	11.0%	4	11.8%	**14**	**11.1%**	24	-40.4%
South Western Region	1	10.0%	7	8.5%	3	8.8%	**11**	**8.7%**	20	-45.7%
West Central Region	2	20.0%	21	25.6%	6	17.6%	**29**	**23.0%**	12	152.2%
Northern Region	3	30.0%	8	9.8%	8	23.5%	**19**	**15.1%**	27	-30.3%
Not Stated	0	-	2	2.4%	1	2.9%	**3**	**2.4%**	4	-14.3%
Total	10	100%	82	100%	34	100%	**126**	**100%**	152	-17.0%

The Eastern Region of Manitoba historically accounts for the largest share of off-road vehicle accidents. In 2009, 50 collisions (40% of the total, slightly behind of the average in 2005-08 of 43%) occurred in the Eastern Region. The West Central Region followed with 29 collisions (23%), while the Northern Region had 19 collisions (15%).

Compared with recent history (2005-08), all of the Manitoba regions experienced significant declines in ORV collisions, with the exception of West Central Region, which significantly increased in 2009 (29 collisions in 2009 compared to an average of 12 in previous 4 years on average).

NOTE: 'MIT Region' has only been compiled for ORV collisions since 2005. Historical averages are presented for the four-year period between 2005 and 2008 only.

Figure 11-8 Proportion of ORV Collisions by Collision Severity and MIT Regions



In 2009, the Eastern and Northern Regions equally accounted for the largest proportion of fatal ORV collisions while the Eastern Region accounted for the largest proportions of injury and PDO collisions involving ORVs.

Table 11-11 Off-Road Vehicle Collisions by Location and Collision Severity

Table 11-11
ORV Collisions by Location and Collision Severity: 2009, 2004-2008 Average

Location	Collision Severity						**2009 Total**	**% of 2009 Total**	2004-08 Average	% Change 2009 to 2004-08 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Public Roadway	2	20.0%	14	17.1%	7	20.6%	**23**	**18.3%**	41	-44.2%
Ditches	0	-	19	23.2%	6	17.6%	**25**	**19.8%**	25	0.0%
River/Lake	2	20.0%	6	7.3%	1	2.9%	**9**	**7.1%**	10	-10.0%
Field	0	-	2	2.4%	2	5.9%	**4**	**3.2%**	21	-80.6%
Bush Trails/Winter Road	0	-	2	2.4%	4	11.8%	**6**	**4.8%**	7	-9.1%
Farm Yard/Private Property	1	10.0%	7	8.5%	0	-	**8**	**6.3%**	13	-39.4%
Marked/Groom Trails	1	10.0%	18	22.0%	8	23.5%	**27**	**21.4%**	18	46.7%
Parking Lot	0	-	0	-	0	-	**0**	-	5	-100.0%
Unmarked trail/hill	0	-	2	2.4%	1	2.9%	**3**	**2.4%**	1	400.0%
Trail	0	-	0	-	0	-	**0**	-	1	-
Embankment	0	-	0	-	0	-	**0**	-	0	-
Gravel Road	0	-	2	2.4%	1	2.9%	**3**	**2.4%**	0	-
Other	0	-	2	2.4%	0	-	**2**	**1.6%**	2	-16.7%
Not Stated	4	40.0%	8	9.8%	4	11.8%	**16**	**12.7%**	5	220.0%
Total	10	100%	82	100%	34	100%	**126**	**100%**	149	-15.5%

*Historical averages are rounded off to the nearest integer. Computations of percentage changes from the historical trend to the current year are based on actual averages and not on the rounded numbers presented in the table.

In 2009, the most common location for off-road vehicle collisions were in "Marked/Groom Trails" (27 collisions or 21%) followed by ditches (25 collisions or 20%). Public roadways accounted for the third largest number of off-road collisions in 2009 (23 collisions or 18%). Collisions on rivers or lakes (i.e. while frozen) accounted for only 7% of total ORV collisions but were in the lead in terms of fatal collisions along with public roadways, each responsible for 2 (or 20%) of fatal crashes involving off-road vehicles.

Compared to the previous five year period (2004 to 2008) on average, collisions on public roadways (23 in 2009 compared to 41 in the previous five years on average) and in a field (4 in 2009 compared to 21 in the previous five years on average) decreased substantially, while collisions on "Marked/Groom Trails" (27 compared to 18) increased.

NOTE: For a detailed historical count of ORV collisions by location in each year from 2003 to 2009, please refer to "*Table 11-20 Historical Summary of ORV Collisions by Location: 2003 to 2009*" at the end of this section.

Table 11-12 ORV Collision Victims by Age Group and Casualty Type

Table 11-12

ORV Collision Victims by Age Group and Casualty Type: 2009, 2004-2008 Average

Age Group	2009 Casualty Type						2004-08 Average			
	Killed	% of Total Killed	Injured	% of Total Injured	**2009 Total Victims**	**% of 2009 Total Victims**	Killed	Injured	Total Victims	% of Total Victims
0-4	0	-	1	1.1%	**1**	**1.0%**	0	1	1	0.7%
5-9	1	10.0%	2	2.2%	**3**	**2.9%**	0	4	4	3.2%
10-14	0	-	5	5.4%	**5**	**4.9%**	0	13	13	11.2%
15-19	1	10.0%	19	20.7%	**20**	**19.6%**	2	25	27	22.9%
20-24	1	10.0%	15	16.3%	**16**	**15.7%**	1	14	15	12.7%
25-34	2	20.0%	11	12.0%	**13**	**12.7%**	1	18	19	16.1%
35-44	1	10.0%	14	15.2%	**15**	**14.7%**	2	18	20	16.6%
45-54	2	20.0%	13	14.1%	**15**	**14.7%**	1	9	10	8.5%
55-64	1	10.0%	3	3.3%	**4**	**3.9%**	0	4	5	3.9%
65+	1	10.0%	0	-	**1**	**1.0%**	0	1	1	1.2%
Not Stated	0	-	9	9.8%	**9**	**8.8%**	0	3	3	2.9%
Total	10	100%	92	100%	**102**	**100%**	8	109	118	100%

In 2009, nearly half of ORV collision victims were between the ages of 0 and 24 (45 victims, 44% of the total), with the largest proportion coming from the 15 to 19 year old age group (20% of all ORV victims). Notwithstanding the large proportion of total ORV collisions, the 0 to 24 age group accounted for only 3 out of 10 fatal collisions, which is the same as the average for the past five years.

NOTE: The classification of victims is different from that of drivers (see Table 11-16) as victims may be any age. Therefore, they are classified by 5-year age cohort up to age 24. While drivers of off-road vehicles may not be required to be licensed as for public roadway vehicles, driver statistics are recorded consistent with other sections, and identified as under 16, 16-19, and then using the same classifications for victims.

NOTE: For a detailed historical count of ORV collision victims by age group in each year from 2003 to 2009, please refer to "*Table 11-21 Historical Summary of ORV Collision Victims by Age Group: 2003 to 2009*" at the end of this section.

Table 11-13 ORV Collision Victims by Gender and Casualty Type

Table 11-13
ORV Collision Victims by Gender and Casualty Type: 2009, 2004-2008 Average

Gender	2009 Casualty Type						2004-08 Average			
	Killed	% of Total Killed	Injured	% of Total Injured	**2009 Total Victims**	**% of 2009 Total Victims**	Killed	Injured	Total Victims	% of Total Victims
Male	10	100.0%	71	77.2%	**81**	**79.4%**	7	84	91	77.1%
Female	0	-	21	22.8%	**21**	**20.6%**	2	25	27	22.9%
Total	10	100%	92	100%	**102**	**100%**	8	109	118	100%

The majority of ORV collision victims, and all of the victims killed, are male. In 2009, males account for 81 of 102 of ORV collision victims (79% of all victims), including 10 of 10 fatalities (100%) and 71 of 92 injuries (77%). Compared to the previous five year period (2004 to 2008) on average, the number of male victims is down in 2009 (81 compared to 91 on average).

Table 11-14 ORV Collision Victims by Safety Equipment Use and Casualty Type 2008

Table 11-14
ORV Collision Victims by Safety Equipment Use and Casualty Type: 2009, 2004-2008 Average

Safety Equipment	2009 Casualty Type						2004-08 Average				% Change 2009 to 2004-08 Average
	Killed	% of Total Killed	Injured	% of Total Injured	**2009 Total Victims**	**% of 2009 Total Victims**	Killed	Injured	Total Victims	% of Total Victims	
Safety Helmet Worn	4	40.0%	42	45.7%	**46**	**45.1%**	3	50	54	45.7%	-14.5%
Safety Helmet Not Worn	6	60.0%	15	16.3%	**21**	**20.6%**	3	23	27	22.6%	-21.1%
Not Stated	0	-	16	17.4%	**16**	**15.7%**	1	25	25	21.6%	-37.0%
Not Applicable*	0	-	19	20.7%	**19**	**18.6%**	1	11	12	10.2%	58.3%
Total	10	100%	92	100%	**102**	**100%**	8	109	118	100%	-13.4%

* Victims who were not operators/passengers of off-road vehicles

In 2009, 46 victims in ORV collisions were wearing a safety helmet; 21 were not. This includes 4 victims killed while wearing a helmet and 6 victims killed while not wearing a helmet. Compared to the previous five years (2004 to 2008) on average, the proportion of victims injured and killed who were wearing a helmet (46%) has remained relatively consistent in 2009 (45%). However, the proportion of victims killed who were not wearing a helmet increased in 2009 (60%), while the proportion of victims injured who were not wearing a helmet decreased in 2009 (16%) compared to the average.

Table 11-15 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants

Table 11-15

ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants (2004-2009)

	Helmet worn		Helmet not worn		Hemet Effectiveness
	Number	Percent	Number	Percent	(Ratio of % helmet not worn to % helmet worn)
Fatal	21	6.6%	23	13.5%	2.04
Injury	297	93.4%	148	86.5%	0.93
Total	318	100%	171	100%	-

As the number of victims wearing helmets exceeds those not wearing helmets, a casual interpretation of the statistics may lead one to conclude that helmets contribute to fatalities and injuries in ORV collisions. However, it is plausible that a large majority of total drivers and passengers are wearing helmets, and thus have a high representation among collision victims. Unfortunately, data is not available to measure helmet usage among ORV drivers and passengers, so this cannot be directly confirmed.

The above table instead compares the proportion of victims killed and injured for those wearing and not wearing helmets. Among those wearing helmets when they sustain an injury from an ORV collision, 6.6% of victims are killed. Among victims from an ORV collision who were not wearing a helmet, 13.5% of victims are killed. This indicates that an ORV collision victim is twice as likely to be killed if they are not wearing a helmet at the time of a collision.

Table 11-16 Drivers Involved in ORV Collisions by Age Group and Collision Severity

Table 11-16
Drivers Involved in ORV Collisions by Age Group and Collision Severity: 2009, 2004-2008 Average

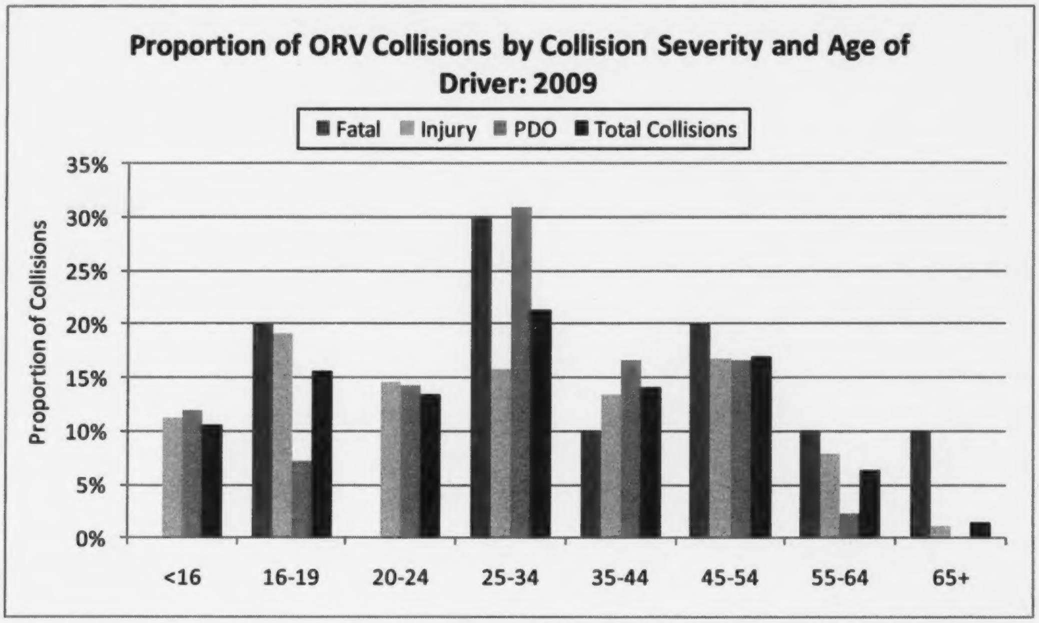
Age Group	Collision Severity						2009 Total	% of 2009 Total*	2004-08 Average	% Change 2009 to 2004-08 Average
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*				
<16	**0**	-	10	11.2%	5	11.9%	**15**	**10.6%**	24	-36.4%
16-19	**2**	20.0%	17	19.1%	3	7.1%	**22**	**15.6%**	24	-7.6%
20-24	**0**	-	13	14.6%	6	14.3%	**19**	**13.5%**	24	-20.8%
25-34	**3**	30.0%	14	15.7%	13	31.0%	**30**	**21.3%**	36	-16.7%
35-44	**1**	10.0%	12	13.5%	7	16.7%	**20**	**14.2%**	36	-44.1%
45-54	**2**	20.0%	15	16.9%	7	16.7%	**24**	**17.0%**	24	0.0%
55-64	**1**	10.0%	7	7.9%	1	2.4%	**9**	**6.4%**	9	-2.2%
65+	**1**	10.0%	1	1.1%	0	-	**2**	**1.4%**	4	-50.0%
Not Stated	**0**	-	4	-	3	-	**7**	**-**	12	-
Total	**10**	100%	93	100%	45	100%	**148**	**100%**	192	-23.1%

*Percentage of the total does not include the "not stated" category.

In 2009, drivers aged 25 to 34 account for the highest proportion of ORV collisions (30 collisions, 21% of the total), followed by drivers aged 45 to 54 (24 collisions or 17%) and 16-19 (22 collisions or 16%). Overall, drivers under 25 years of age account for 40% of ORV collisions, 2 of 10 fatal collisions and 45% of injury collisions. Drivers aged 25 to 54 account for just over half of all ORV collisions (nearly 53%) and 6 of 10 fatal collisions. Drivers aged 55 and older account for 8% of all collisions, 2 of 10 fatal collisions, and 9% of injury collisions.

Compared to previous five years (2004 to 2008) on average, in 2009 the distribution of drivers involved in ORV collisions by age group remained relatively unchanged.

Figure 11-9 Distribution of Total Driver Involvement in Off-Road Vehicle Collisions by Age Group 2009



In 2009, drivers aged 25 to 34 account for the largest proportions of fatal and PDO ORV collisions. Drivers aged 16 to 19 account for the largest proportion of injury ORV collisions.

Drivers age 25 to 54, combined, account for the majority of PDO collisions involving ORVs (64%).

Table 11-17 ORV Collisions by Contributing Factors and Collision Severity

Table 11-17

Drivers Involved in ORV Collisions by Contributing Factors and Collision Severity: 2009

Contributing Factor	2009 Collision Severity						2009 Total Drivers	% of 2009 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	1	10.0%	20	21.5%	14	31.1%	**35**	**23.6%**
Driver Action - Driving properly	1	10.0%	4	4.3%	3	6.7%	**8**	**5.4%**
Any At-fault Driver Action	5	50.0%	40	43.0%	16	35.6%	**61**	**41.2%**
Following too closely	0	-	1	1.1%	2	4.4%	**3**	**2.0%**
Turning improperly	0	-	1	1.1%	0	-	**1**	**0.7%**
Passing improperly	0	-	0	-	0	-	**0**	**-**
Changing lanes improperly	0	-	0	-	0	-	**0**	**-**
Fail to yield right-of-way	0	-	1	1.1%	1	2.2%	**2**	**1.4%**
Disobey traffic control device/officer	0	-	1	1.1%	0	-	**1**	**0.7%**
Drive wrong way on roadway	0	-	1	1.1%	1	2.2%	**2**	**1.4%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	0	-	1	2.2%	**1**	**0.7%**
Parking improperly	0	-	0	-	0	-	**0**	**-**
Careless Driving	1	10.0%	13	14.0%	3	6.7%	**17**	**11.5%**
Lost control/Drive off road	0	-	17	18.3%	5	11.1%	**22**	**14.9%**
Driverless vehicle ran out of control	0	-	0	-	0	-	**0**	**-**
Leave stop sign before safe to do so	0	-	0	-	0	-	**0**	**-**
Failed to signal	0	-	0	-	0	-	**0**	**-**
Take avoiding action	0	-	1	1.1%	2	4.4%	**3**	**2.0%**
Driver inexperience	1	10.0%	4	4.3%	2	4.4%	**7**	**4.7%**
Pedestrian error/confusion	0	-	0	-	0	-	**0**	**-**
NET Speed	4	40.0%	15	16.1%	0	-	**19**	**12.8%**
Exceeding speed limit	1	10.0%	0	-	0	-	**1**	**0.7%**
Driving too fast for conditions	2	20.0%	4	4.3%	0	-	**6**	**4.1%**
Unsafe operating speed (Too fast or too slow)	1	10.0%	11	11.8%	0	-	**12**	**8.1%**

(Continued next page)

(Continued from previous page)

Human Condition - Apparently Normal	0	-	13	14.0%	13	28.9%	**26**	**17.6%**
Any At-fault Human Condition	6	60.0%	10	10.8%	6	13.3%	**22**	**14.9%**
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	**0**	**-**
Extreme fatigue/Fell asleep	0	-	0	-	0	-	**0**	**-**
Defective eyesight	0	-	1	1.1%	0	-	**1**	**0.7%**
Defective hearing	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	0	-	0	-	**0**	**-**
Physical disability	1	10.0%	0	-	0	-	**1**	**0.7%**
Mental disability	0	-	0	-	0	-	**0**	**-**
Mental confusion/Inability to remember	0	-	0	-	0	-	**0**	**-**
Sudden illness	0	-	0	-	0	-	**0**	**-**
Distraction/Inattention	1	10.0%	5	5.4%	3	6.7%	**9**	**6.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	**-**
NET Impaired	6	60.0%	5	5.4%	3	6.7%	**14**	**9.5%**
Ability impaired alcohol	4	40.0%	1	1.1%	2	4.4%	**7**	**4.7%**
Ability impaired drugs	0	-	1	1.1%	0	-	**1**	**0.7%**
Had been drinking/Suspected alcohol use	2	20.0%	3	3.2%	1	2.2%	**6**	**4.1%**
No apparent (vehicle) defect	3	30.0%	34	36.6%	26	57.8%	**63**	**42.6%**
Any At-fault Vehicle Defect	0	-	0	-	3	6.7%	**3**	**2.0%**
Defective brakes	0	-	0	-	0	-	**0**	**-**
Defective steering	0	-	0	-	0	-	**0**	**-**
Defective headlights	0	-	0	-	0	-	**0**	**-**
Defective brake lights	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	0	-	0	-	0	-	**0**	**-**
Defective engine controls/drive train	0	-	0	-	0	-	**0**	**-**
Defective suspension/wheels	0	-	0	-	1	2.2%	**1**	**0.7%**
Defective tires	0	-	0	-	0	-	**0**	**-**
Tow hitch/yoke defective	0	-	0	-	1	2.2%	**1**	**0.7%**
Defective exhaust system	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	0	-	**0**	**-**
Defective glazing (obscured windows)	0	-	0	-	0	-	**0**	**-**
Vehicle modifications	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	0	-	0	-	0	-	**0**	**-**

(Continued next page)

(Continued from previous page)

Jack-knife/trailer swing	0	-	0	-	0	-	**0**	**-**
Hydroplaning tires	0	-	0	-	1	2.2%	**1**	**0.7%**
Any At-fault Environmental Condition	0	-	19	20.4%	11	24.4%	**30**	**20.3%**
Animal action - Wild	0	-	2	2.2%	0	-	**2**	**1.4%**
Animal action - Domestic	0	-	1	1.1%	0	-	**1**	**0.7%**
Slippery road surface	0	-	1	1.1%	3	6.7%	**4**	**2.7%**
Snow drift	0	-	1	1.1%	1	2.2%	**2**	**1.4%**
Obstruction/debris on roadway	0	-	6	6.5%	5	11.1%	**11**	**7.4%**
View obstructed/limited	0	-	0	-	1	2.2%	**1**	**0.7%**
Glare/reflection	0	-	1	1.1%	0	-	**1**	**0.7%**
Construction zone	0	-	0	-	0	-	**0**	**-**
Defective driving surface	0	-	7	7.5%	1	2.2%	**8**	**5.4%**
Shoulders defective	0	-	0	-	0	-	**0**	**-**
Lane markings inadequate	0	-	0	-	0	-	**0**	**-**
Defective/inoperative traffic control device	0	-	0	-	0	-	**0**	**-**
Weather	0	-	1	1.1%	0	-	**1**	**0.7%**
Pedestrian corridor in use	0	-	0	-	0	-	**0**	**-**
Uninvolved vehicle	0	-	0	-	0	-	**0**	**-**
Uninvolved pedestrian	0	-	0	-	0	-	**0**	**-**
Presence of prior accident	0	-	0	-	0	-	**0**	**-**
No contributing factor(s) identified	0	-	2	2.2%	1	2.2%	**3**	**2.0%**
Not applicable/Not stated	2	20.0%	1	1.1%	2	4.4%	**5**	**3.4%**
Total	10	100%	93	100.0%	45	100.0%	**148**	**100.0%**

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

In 2009, at-fault contributing factors were recorded for 76% of the drivers involved in ORV collisions, including:

- 9 of 10 drivers involved in fatal collisions (90%);
- 73 drivers involved in injury collisions (78%); and,
- 31 drivers involved in PDO collisions (69%).

At-fault driver actions were recorded for 41% of the drivers involved in ORV collisions. The most prevalent of these include:

- "Lost control" – 15% of the drivers involved;
- Speed (including "Exceeding speed limit", "Driving too fast for conditions" and "Unsafe operating speed") – 13% of drivers involved;
- "Careless driving" – nearly 12% of the drivers involved; and,
- "Driver inexperience" – 5% of the drivers involved.

At-fault human conditions were recorded for 15% of the drivers involved in ORV collisions. The most prevalent of these include:

- Impaired (including "ability impaired by alcohol", "ability impaired by drugs" and "had been drinking/suspected alcohol use") – nearly 10% of the drivers involved; and,
- "Distraction/Inattention" – 6% of the drivers involved.

Environmental conditions were recorded as contributing to 20% of the drivers involved in ORV collisions, with the most prevalent being "obstruction/debris on roadway" (7%) and "defective driving surface" (5%).

Only 2% of the drivers and vehicles involved in ORV collisions had a vehicle defect recorded as a contributing factor.

Due to a change in reporting format, historical information for contributing factors is only available from year 2007 forward.

In the previous two years (2007 to 2008) on average, of the drivers involved in ORV collisions:

- 57% had an at-fault driver action recorded, with the most common being speed (19%), "careless driving" and "lost control" (10% each), and "driver inexperience" (7%);
- 17% had an at-fault 'Human Condition' recorded, with the most common being impaired (8%) and "distraction/inattention" (7%);
- Nearly 31% had an environmental condition recorded, with the most common being "obstruction/debris on roadway" (8%), "snow drift" (7%) and "slippery road surface" and "defective driving surface" (nearly 5% each); and,
- 6% had a vehicle defect recorded as a contributing factor.

Fatal ORV collisions in 2009 are very likely to have either an at-fault driver action or human condition recorded as a contributing factor. Five of ten fatal collisions (50%) had an at-fault driver action and six of ten (60%) had an at-fault human condition. The most common at-fault contributing factors in fatal ORV collisions in 2009 are the driver being impaired (including "ability impaired by alcohol", "ability impaired by drugs" and "had been drinking/suspected alcohol use"), 6 of 10 fatal collisions, and speed (including "Exceeding speed limit", "Driving too fast for conditions" and "Unsafe operating speed"), 4 of 10 fatal collisions.

NOTE: For a detailed historical count of ORV collisions by the contributing factors recorded in each year from 2007 to 2009, please refer to "*Table 11-22 Historical Summary of ORV Collisions by Contributing Factors: 2007 to 2009*" at the end of this section.

Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration

Table 11-18
Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration: 2005 to 2008

Vehicle Type	2005		2006		2007		2008		**2009**	
	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	**Active Registrations Involved**	**% Known to be Registered****
Snowmobile	97	70%	123	71%	94	76%	74	80%	**64**	**70%**
ATV	64	58%	53	60%	37	54%	51	57%	**57**	**58%**
Motorcycle	12	33%	10	20%	6	17%	7	29%	**6**	**50%**
Other*	33	82%	42	86%	37	84%	34	82%	**26**	**81%**
Total	206	66.0%	228	68.9%	174	70.7%	166	71.1%	**153**	**66.7%**

* 'Other' includes: vehicles n[illegible]tered as an off-road vehicle, dune /sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

** The "% known to be registered" is calculated as active registrations as indicated on the TAR as a proportion of total ORVs in the category.

Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence

Table 11-19
Historical Summary of ORV Collisions by Month of Occurrence: 2003 to 2009

Month	2003 Total	% of 2003 Total	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	**2009 Total**	**% of 2009 Total**
January	15	12.2%	23	16.5%	16	9.9%	15	8.5%	20	14.6%	20	14.6%	**23**	**18.3%**
February	22	17.9%	22	15.8%	26	16.0%	26	14.8%	24	17.5%	24	17.5%	**16**	**12.7%**
March	15	12.2%	11	7.9%	26	16.0%	38	21.6%	18	13.1%	18	13.1%	**10**	**7.9%**
April	9	7.3%	7	5.0%	9	5.6%	9	5.1%	2	1.5%	2	1.5%	**6**	**4.8%**
May	6	4.9%	15	10.8%	14	8.6%	6	3.4%	15	10.9%	15	10.9%	**6**	**4.8%**
June	6	4.9%	7	5.0%	11	6.8%	15	8.5%	9	6.6%	9	6.6%	**14**	**11.1%**
July	9	7.3%	16	11.5%	9	5.6%	12	6.8%	10	7.3%	10	7.3%	**14**	**11.1%**
August	8	6.5%	6	4.3%	14	8.6%	10	5.7%	12	8.8%	12	8.8%	**7**	**5.6%**
September	8	6.5%	4	2.9%	7	4.3%	11	6.3%	3	2.2%	3	2.2%	**7**	**5.6%**
October	6	4.9%	5	3.6%	10	6.2%	4	2.3%	3	2.2%	3	2.2%	**6**	**4.8%**
November	4	3.3%	6	4.3%	3	1.9%	1	0.6%	5	3.6%	5	3.6%	**5**	**4.0%**
December	15	12.2%	17	12.2%	17	10.5%	29	16.5%	16	11.7%	16	11.7%	**12**	**9.5%**
Total	123	100%	139	100%	162	100%	176	100%	137	100%	137	100%	**126**	**100%**

Table 11-20 Historical Summary of ORV Collisions by Location

Table 11-20
Historical Summary of ORV Collisions by Location: 2003 to 2009

Location	2003 Total	% of 2003 Total	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	**2009 Total**	**% of 2009 Total**
Public Roadway	35	28.5%	42	30.2%	50	30.9%	60	34.1%	27	20.5%	27	19.7%	**23**	**18.3%**
Ditches	15	12.2%	21	15.1%	21	13.0%	30	17.0%	23	17.4%	30	21.9%	**25**	**19.8%**
River/Lake	12	9.8%	8	5.8%	7	4.3%	7	4.0%	9	6.8%	19	13.9%	**9**	**7.1%**
Field	14	11.4%	27	19.4%	23	14.2%	32	18.2%	9	6.8%	12	8.8%	**4**	**3.2%**
Bush Trails/Winter Road	6	4.9%	8	5.8%	5	3.1%	9	5.1%	8	6.1%	3	2.2%	**6**	**4.8%**
Farm Yard/Private Property	14	11.4%	17	12.2%	15	9.3%	10	5.7%	17	12.9%	7	5.1%	**8**	**6.3%**
Marked/Groom Trails	18	14.6%	9	6.5%	27	16.7%	16	9.1%	23	17.4%	17	12.4%	**27**	**21.4%**
Parking Lot	2	1.6%	5	3.6%	7	4.3%	5	2.8%	6	4.5%	1	0.7%	**0**	**-**
Unmarked trail/hill	0	-	0	-	0	-	0	-	2	1.5%	1	0.7%	**3**	**2.4%**
Trail	0	-	0	-	0	-	0	-	0	-	4	2.9%	**0**	**-**
Embankment	0	-	0	-	0	-	0	-	0	-	1	0.7%	**0**	**-**
Gravel Road	0	-	0	-	0	-	0	-	0	-	2	1.5%	**3**	**2.4%**
Other	4	3.3%	1	0.7%	4	2.5%	3	1.7%	4	3.0%	0	-	**2**	**1.6%**
Not Stated	3	2.4%	1	0.7%	3	1.9%	4	2.3%	4	3.0%	13	9.5%	**16**	**12.7%**
Total	123	100%	139	100%	162	100%	176	100%	132	100%	137	100%	**126**	**100%**

Table 11-21 Historical Summary of ORV Collision Victims by Age Group

Table 11-21
Historical Summary of ORV Collision Victims by Age Group: 2003 to 2009

Age Group	2003 Total	% of 2003 Total	2004 Total	% of 2004 Total	2005 Total	% of 2005 Total	2006 Total	% of 2006 Total	2007 Total	% of 2007 Total	2008 Total Victims	% of 2008 Total Victims	**2009 Total**	**% of 2009 Total**
0-4	0	-	2	1.9%	0	-	0	-	0	-	0	-	**1**	**1.0%**
5-9	2	1.8%	3	2.8%	3	2.3%	5	3.5%	5	4.7%	5	4.7%	**3**	**2.9%**
10-14	9	8.3%	7	6.5%	12	9.2%	20	14.1%	12	11.3%	12	11.3%	**5**	**4.9%**
15-19	16	14.7%	23	21.5%	36	27.5%	37	26.1%	23	21.7%	23	21.7%	**20**	**19.6%**
20-24	15	13.8%	16	15.0%	15	11.5%	24	16.9%	11	10.4%	11	10.4%	**16**	**15.7%**
25-34	25	22.9%	19	17.8%	19	14.5%	17	12.0%	16	15.1%	16	15.1%	**13**	**12.7%**
35-44	17	15.6%	21	19.6%	25	19.1%	20	14.1%	17	16.0%	17	16.0%	**15**	**14.7%**
45-54	16	14.7%	7	6.5%	11	8.4%	11	7.7%	9	8.5%	9	8.5%	**15**	**14.7%**
55-64	4	3.7%	3	2.8%	7	5.3%	5	3.5%	5	4.7%	5	4.7%	**4**	**3.9%**
65+	2	1.8%	3	2.8%	1	0.8%	0	-	2	1.9%	2	1.9%	**1**	**1.0%**
Not Stated	3	2.8%	3	2.8%	2	1.5%	3	2.1%	6	5.7%	6	5.7%	**9**	**8.8%**
Total	109	100%	107	100%	131	100%	142	100%	106	100%	106	100%	**102**	**100%**

Table 11-22 Historical Summary of ORV Collisions by Contributing Factors

Table 11-22

Historical Summary of ORV Collisions by Contributing Factors: 2007 to 2009

Contributing Factor	2007	% of 2007 Total	2008	% of 2008 Total	**2009**	**% of 2009 Total**
Driver Action - Driving Properly and Human Condition - Apparently Normal	68	39.8%	59	36.9%	**35**	**23.6%**
Driver Action - Driving properly	4	2.3%	5	3.1%	**8**	**5.4%**
Any At-fault Driver Action	98	57.3%	92	57.5%	**61**	**41.2%**
Following too closely	4	2.3%	3	1.9%	**3**	**2.0%**
Turning improperly	1	0.6%	1	0.6%	**1**	**0.7%**
Passing improperly	0	-	0	-	**0**	**-**
Changing lanes improperly	0	-	0	-	**0**	**-**
Fail to yield right-of-way	7	4.1%	4	2.5%	**2**	**1.4%**
Disobey traffic control device/officer	2	1.2%	1	0.6%	**1**	**0.7%**
Drive wrong way on roadway	0	-	1	0.6%	**2**	**1.4%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	**0**	**-**
Back unsafely	2	1.2%	1	0.6%	**1**	**0.7%**
Parking improperly	0	-	0	-	**0**	**-**
Careless Driving	12	7.0%	21	13.1%	**17**	**11.5%**
Lost control/Drive off road	14	8.2%	20	12.5%	**22**	**14.9%**
Driverless vehicle ran out of control	0	-	1	0.6%	**0**	**-**
Leave stop sign before safe to do so	2	1.2%	0	-	**0**	**-**
Failed to signal	0	-	0	-	**0**	**-**
Take avoiding action	4	2.3%	0	-	**3**	**2.0%**
Driver inexperience	16	9.4%	8	5.0%	**7**	**4.7%**
Pedestrian error/confusion	2	1.2%	0	-	**0**	**-**
NET Speed	32	18.7%	32	20.0%	**19**	**12.8%**
Exceeding speed limit	5	2.9%	6	3.8%	**1**	**0.7%**
Driving too fast for conditions	23	13.5%	14	8.8%	**6**	**4.1%**
Unsafe operating speed (Too fast or too slow)	4	2.3%	12	7.5%	**12**	**8.1%**
Human Condition - Apparently Normal	74	43.3%	69	43.1%	**26**	**17.6%**
Any At-fault Human Condition	28	16.4%	27	16.9%	**22**	**14.9%**
Loss of consciousness/Blackout prior to collision	0	-	0	-	**0**	**-**
Extreme fatigue/Fell asleep	0	-	0	-	**0**	**-**
Defective eyesight	0	-	0	-	**1**	**0.7%**
Defective hearing	0	-	0	-	**0**	**-**

(Continued next page)

(Continued from previous page)

Medical disability	0	-	1	0.6%	0	-
Physical disability	0	-	0	-	1	0.7%
Mental disability	0	-	0	-	0	-
Mental confusion/Inability to remember	0	-	3	1.9%	0	-
Sudden illness	0	-	0	-	0	-
Distraction/Inattention	12	7.0%	12	7.5%	9	6.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-
NET Impaired	16	9.4%	11	6.9%	14	9.5%
Ability impaired alcohol	8	4.7%	7	4.4%	7	4.7%
Ability impaired drugs	1	0.6%	1	0.6%	1	0.7%
Had been drinking/Suspected alcohol use	7	4.1%	4	2.5%	6	4.1%
No apparent (vehicle) defect	104	60.8%	99	61.9%	63	42.6%
Any At-fault Vehicle Defect	10	5.8%	10	6.3%	3	2.0%
Defective brakes	1	0.6%	1	0.6%	0	-
Defective steering	1	0.6%	0	-	0	-
Defective headlights	2	1.2%	0	-	0	-
Defective brake lights	0	-	0	-	0	-
Defective lighting (unspecified)	1	0.6%	0	-	0	-
Defective engine controls/drive train	2	1.2%	4	2.5%	0	-
Defective suspension/wheels	0	-	1	0.6%	1	0.7%
Defective tires	1	0.6%	0	-	0	-
Tow hitch/yoke defective	0	-	0	-	1	0.7%
Defective exhaust system	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	0	-	0	-
Defective glazing (obscured windows)	0	-	0	-	0	-
Vehicle modifications	0	-	1	0.6%	0	-
Fire	2	1.2%	3	1.9%	0	-
Overloaded/oversized	0	-	0	-	0	-
Load shifted/spilled	0	-	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	1	0.7%
Any At-fault Environmental Condition	55	32.2%	46	28.8%	30	20.3%
Animal action - Wild	1	0.6%	2	1.3%	2	1.4%
Animal action - Domestic	1	0.6%	0	-	1	0.7%
Slippery road surface	8	4.7%	7	4.4%	4	2.7%
Snow drift	12	7.0%	12	7.5%	2	1.4%
Obstruction/debris on roadway	10	5.8%	16	10.0%	11	7.4%
View obstructed/limited	6	3.5%	0	-	1	0.7%
Glare/reflection	1	0.6%	1	0.6%	1	0.7%

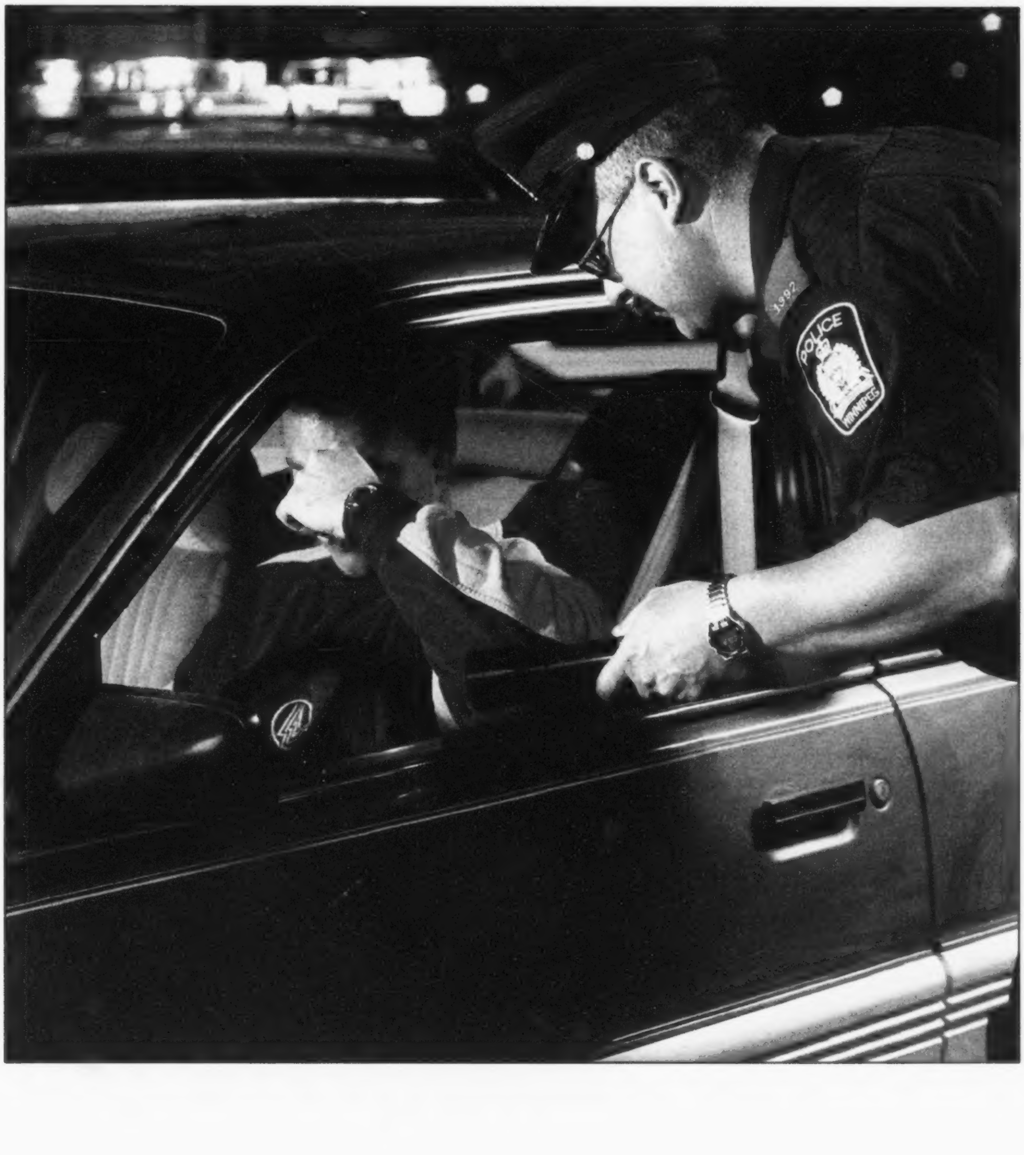
(Continued next page)

(Continued from previous page)

Construction zone	0	-	0	-	**0**	**-**
Defective driving surface	10	5.8%	5	3.1%	**8**	**5.4%**
Shoulders defective	0	-	0	-	**0**	**-**
Lane markings inadequate	1	0.6%	0	-	**0**	**-**
Defective/inoperative traffic control device	2	1.2%	0	-	**0**	**-**
Weather	3	1.8%	2	1.3%	**1**	**0.7%**
Pedestrian corridor in use	0	-	0	-	**0**	**-**
Uninvolved vehicle	0	-	0	-	**0**	**-**
Uninvolved pedestrian	0	-	0	-	**0**	**-**
Presence of prior accident	0	-	1	0.6%	**0**	**-**
No contributing factor(s) identified	1	0.6%	3	1.9%	**3**	**2.0%**
Not applicable/Not stated	0	-	0	-	**5**	**3.4%**
Total	171	100.0%	160	100.0%	**148**	**100.0%**

*NOTE: For each vehicle and/or driver involved in a collision, police can record up to three contributing factors. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

SECTION 12 - Alcohol-Related Criminal Code Convictions


POLICE
WINNIPEG
1992

Introduction

This section counts the number of drivers convicted of alcohol-related Criminal Code offences for the year 2008 by age at the time of the offence and includes historical statistics for the period 1989 to 2007. Details are provided for 'first', 'second' and 'third and subsequent' (i.e., third, fourth, fifth, etc. combined) offences and whether or not a youth was present in the vehicle at the time of the offence.

Key Highlights

In 2008, there are a total of 2,034 alcohol-related Criminal Code offence convictions among Manitoba drivers, including:

- 1,329 convictions for driving with a BAC over .08;
- 616 convictions for impaired driving; and,
- 89 convictions for refusing to provide a breath or blood sample.

In the 20-year period from 1989 to 2008, the total alcohol-related Criminal Code convictions declined by 59.2%, from 4,984 in 1989 to 2,034 in 2008.

Over the past twenty years, alcohol-related Criminal Code convictions have declined in all age groups in Manitoba. Comparing the total number of convictions in 2008 to 1989 among drivers:

- Under 25 years of age, convictions declined by 63.0%;
- 25 to 44 years of age, convictions declined by 63.9%;
- 45 to 65 years of age, convictions declined by 28.5%; and,
- 65 years of age and older, convictions declined by 54.9%.

Licensed drivers up to the age of 44 are overrepresented in alcohol-related Criminal Code convictions.

Rates of recidivism, indicated by second, third and subsequent offences by the same driver, decreased substantially from 1998 to 2008. There was a 60.2% reduction in drivers convicted of a second alcohol-related Criminal Code offence, and a 62.6% reduction in drivers convicted of a third and subsequent offence in 2008 when compared to 1998.

Major Elements Examined

This section reports the number of drivers convicted of alcohol-related Criminal Code offences. There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2008 is the most current year for which these statistics are available.

Convictions reported have been broken down by whether or not a passenger under the age of 16 was in the vehicle at the time the offence occurred (under columns designated by a trailing "C" in the statute number). In 2005, Manitoba added increased consequences to Criminal Code offences 253A, 253B and 254-5 when committed with a youth in the vehicle; 2007 represents the first year where these conviction categories are available for reporting.

Beginning in 2007, convictions for impaired driving offences originating in other provinces and the United States have been added to the counts reported here. Prior to that time, these "out-of-province" offences were not included in the annual counts.

"Relative involvement rates" in this section of the report are calculated as a rate per 1,000 licensed drivers to ensure consistency with other jurisdictions.

In years past, the severity of the sanctions imposed by the courts in Manitoba took into account whether or not the offence involved a traffic accident. Legislative changes in 2004 ended this practice. Until that time, Driver Records had noted whether the conviction was associated with an accident; that procedure has been discontinued and this report no longer includes a separate count for convictions occurring with and without an accident.

Terms and Definitions

"Blood alcohol content (BAC)"

- A measure of the concentration of alcohol in a person's blood. A measure of ".08 BAC" is equivalent of 80 milligrams of alcohol per 1,000 milligrams of blood, or 0.08%.

"Criminal Code 253A" and "Criminal Code 253B"[5]: Impaired driving

- Everyone commits an offence who operates a motor vehicle or vessel or operates or assists in the operation of an aircraft or of railway equipment or has the care or control of a motor vehicle, vessel, aircraft or railway equipment, whether it is in motion or not,
  - (*a*) while the person's ability to operate the vehicle, vessel, aircraft or railway equipment is impaired by alcohol or a drug; or
  - (*b*) having consumed alcohol in such a quantity that the concentration in the person's blood exceeds eighty milligrams of alcohol in one hundred millilitres of blood.
- For greater certainty, the reference to impairment by alcohol or a drug in paragraph (*a*) includes impairment by a combination of alcohol and a drug.
- "253AC" and "253BC" indicate a conviction when there was a youth in the vehicle.

"Criminal Code Statute 254-5": Refusing to comply with a request for sample

- If a peace officer has reasonable grounds to suspect that a person has alcohol or a drug in their body and that the person has, within the preceding three hours, operated a motor vehicle or vessel, operated or assisted in the operation of an aircraft or railway equipment or had the care or control of a motor vehicle, a vessel, an aircraft or railway equipment, whether it was in motion or not, the peace officer may, by demand, require the person to comply with paragraph (*a*), in the case of a drug, or with either or both of paragraphs (*a*) and (*b*), in the case of alcohol:
  - (*a*) to perform forthwith physical coordination tests … and, if necessary, to accompany the peace officer for that purpose; and
  - (*b*) to provide forthwith a sample of breath that, in the peace officer's opinion, will enable a proper analysis to be made by means of an approved screening device and, if necessary, to accompany the peace officer for that purpose.
- Everyone commits an offence who, without reasonable excuse, fails or refuses to comply with a demand made under this section.
- "254-5C" indicates a conviction when there was a youth in the vehicle.

"Criminal Code Statute 255-2": Impaired driving/refusing to provide sample causing injury

- Everyone who commits an offence under paragraph 253(*a*) and causes bodily harm to another person as a result is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.

"Criminal Code Statute 255-3": Impaired driving/refusing to provide sample causing death

- Everyone who commits an offence under paragraph 253(*a*) and causes the death of another person as a result is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in the death of another person is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in the death of another person, or in bodily harm to another person whose death ensues, is guilty of an indictable offence and liable to imprisonment for life.

---

[5] Definitions for Criminal Code Statute 253, 254 and 255 are taken directly from the **Criminal Code (R.S., 1985, c. C-46)** of Canada, as posted on the Department of Justice website. (http://laws.justice.gc.ca/en/)

Table 12-1: Total Alcohol-Related Criminal Code Convictions

Table 12-1

Total Alcohol-Related Criminal Code Convictions: 1989 to 2008*

Year	Alcohol Content Over .08		Impaired Driving		Impaired Driving Causing Injury/Death		Refuse Sample		Total
	253B	253BC	253A	253AC	255-2	255-3	254-5	254-5C	
1989	3,886	N/A	480	N/A	33	6	579	N/A	4,984
1990	3,697	N/A	405	N/A	28	2	484	N/A	4,616
1991	3,712	N/A	373	N/A	44	2	460	N/A	4,591
1992	3,018	N/A	324	N/A	41	3	366	N/A	3,752
1993	2,518	N/A	334	N/A	29	3	333	N/A	3,217
1994	2,516	N/A	405	N/A	34	2	362	N/A	3,319
1995	2,478	N/A	405	N/A	25	3	264	N/A	3,175
1996	2,267	N/A	334	N/A	24	0	250	N/A	2,875
1997	2,519	N/A	366	N/A	37	3	277	N/A	3,202
1998	2,487	N/A	404	N/A	36	1	291	N/A	3,219
1999	2,460	N/A	441	N/A	29	3	320	N/A	3,253
2000	1,959	N/A	493	N/A	34	4	245	N/A	2,735
2001	1,783	N/A	574	N/A	35	2	186	N/A	2,580
2002	1,655	N/A	611	N/A	20	4	143	N/A	2,433
2003	1,464	N/A	567	N/A	19	3	144	N/A	2,197
2004	1,316	N/A	486	N/A	19	4	97	N/A	1,922
2005	1,089	N/A	474	N/A	16	4	98	N/A	1,681
2006	1,270	N/A	478	N/A	12	4	67	N/A	1,831
2007	1,301	3	618	1	14	2	80	0	2,019
2008	**1,324**	**5**	**593**	**5**	**15**	**3**	**89**	**0**	**2,034**
2003-07 Average	1,288	N/A	525	N/A	16	3	97	N/A	1,930
% Change 2007 to 2008	1.8%	66.7%	-4.0%	400.0%	7.1%	50.0%	11.3%	-	0.7%
% Change 2003-07 Average to 2008	2.8%	N/A	13.0%	N/A	-6.3%	-11.8%	-8.4%	N/A	5.4%
% Change 1989 to 2008	-65.9%	N/A	23.5%	N/A	-54.5%	-50.0%	-84.6%	N/A	-59.2%

*There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2008 is the most current year for which these statistics are available.

NOTE: In 2005, Manitoba added increased consequences for Criminal Code offences 253A, 253B and 254-5 committed with a youth under the age of 16 in the vehicle. These convictions are denoted by a trailing "C" in the statute number.

NOTE: Counts and percentage change statistics that cannot be calculated due to fact that the specific conviction code or type did not exist in historical data are noted in the table as "N/A". Changes to the previous year and to the previous five-year trend for convictions committed with a youth in the vehicle should be interpreted with caution due to small counts.

CAUTION: Beginning in 2007, convictions for impaired driving offences originating in other provinces and the United States have been added to the counts reported here. Prior to that time, these "out-of-province" offences were not included in the annual counts. The difference in convictions noted in 2008 compared to years prior to 2007 is affected by this change.

During the twenty-year period 1989 to 2008, the total number of drivers convicted of an alcohol-related Criminal Code offence declined each year between 1989 and 1993. A small increase in the total number of convictions in 1994 was followed by decreases in 1995 and 1996 and by increases in 1997, 1998 and 1999. Decreases were then recorded each year until 2006, when convictions increased by 8.9% over 2005 and then increased again in 2007 by 10.3%. 2008 is the third year in a row to see an increase in the total number of alcohol-related Criminal Code convictions in Manitoba, climbing from a low count in 2005 that was preceded by six consecutive years of decreases.

In 2008, drivers convicted of alcohol-related Criminal Code offences (2,034) increased by 0.7% compared to 2007 (2,019) and by 5.4% compared to the average of the previous five year period (1,930 on average in 2003 to 2007). The average rate of change in the total count of alcohol-related Criminal Code convictions in the previous five year period (2003 to 2007) was a decrease of 3.1% per year, driven by ten percent or more decreases in 2003 to 2005.

Comparing 2008 to the previous five year period (2003 to 2007) on average:

- Convictions for "alcohol content over .08" increased by 2.8%;
- Convictions for "impaired driving" increased by 13%; and,
- Convictions for "refuse sample" decreased by 8.4%.

There were 5 convictions for driving with a "BAC over .08" and 5 for "impaired driving" with a youth in the vehicle in 2008. No convictions for "refusing to provide a breath sample" with a youth in the vehicle were recorded in 2008. Because 2008 is the second year in which it was possible to be charged with these offences, there is no historical data available for the years 1989 to 2006; it is difficult to determine any trend in these convictions with only two years of data available.

In the 20-year period from 1989 to 2008, total alcohol-related Criminal Code convictions declined by 59.2%, from 4,984 in 1989 to 2,034 in 2008.

- Convictions for "alcohol content over .08" decreased by 65.9% (3,886 in 1989 to 1,324 in 2008).
- Convictions for "impaired driving" increased by 23.5% (480 in 1989 to 593 in 2008).
- Convictions for "refuse sample" decreased by 84.6% (579 in 1989 to 89 in 2008).

Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group

Table 12-2

Total Alcohol-Related Criminal Code Convictions by Age Group: 1989 to 2008

	<16	16-17	18-20	21-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
1989	9	124	622	909	983	755	516	392	242	163	133	65	46	19	6	4,984
1990	10	119	583	744	940	704	538	341	223	179	92	73	46	19	5	4,616
1991	12	104	520	709	923	728	527	389	240	176	110	71	47	26	9	4,591
1992	4	86	426	606	667	624	431	365	206	129	83	62	42	13	8	3,752
1993	7	64	286	494	584	543	402	292	194	146	79	67	31	22	6	3,217
1994	5	49	363	473	553	566	435	288	205	138	88	86	42	24	4	3,319
1995	3	82	364	471	518	547	422	278	177	111	86	59	33	11	13	3,175
1996	7	66	366	388	447	394	387	267	208	151	71	66	32	10	15	2,875
1997	7	105	430	495	451	440	440	302	201	130	78	50	44	18	11	3,202
1998	7	109	349	448	495	459	455	306	227	163	82	49	39	25	6	3,219
1999	13	81	412	504	484	445	429	330	248	151	56	46	28	15	11	3,253
2000	12	75	345	430	396	368	354	298	198	102	66	42	23	14	12	2,735
2001	11	91	357	379	384	334	322	259	177	128	54	44	22	15	3	2,580
2002	11	85	333	338	359	309	277	282	175	102	78	39	24	10	11	2,433
2003	7	65	300	308	317	269	237	233	178	109	81	44	26	14	9	2,197
2004	5	55	282	273	251	235	209	232	150	83	63	46	21	13	4	1,922
2005	6	46	210	272	243	204	178	158	139	91	51	45	24	5	9	1,681
2006	8	58	260	298	267	222	174	182	170	82	60	35	16	5	5	1,843
2007	7	50	274	289	306	248	244	200	151	110	67	35	19	9	10	2,019
2008	**4**	**59**	**234**	**320**	**312**	**245**	**196**	**201**	**197**	**117**	**74**	**43**	**21**	**8**	**3**	**2,034**
2003-07 Average	7	55	265	288	277	236	208	201	158	95	64	41	21	9	7	1,932
% Change 2007 to 2008	-42.9%	18.0%	-14.6%	10.7%	2.0%	-1.2%	-19.7%	0.5%	30.5%	6.4%	10.4%	22.9%	10.5%	-11.1%	-70.0%	0.7%
% Change 2003-07 Average to 2008	-39.4%	7.7%	-11.8%	11.1%	12.7%	4.0%	-6.0%	0.0%	25.0%	23.2%	14.9%	4.9%	-0.9%	-13.0%	-59.5%	5.3%
% Change 1989-2008	-55.6%	-52.4%	-62.4%	-64.8%	-68.3%	-67.5%	-62.0%	-48.7%	-18.6%	-28.2%	-44.4%	-33.8%	-54.3%	-57.9%	-50.0%	-59.2%

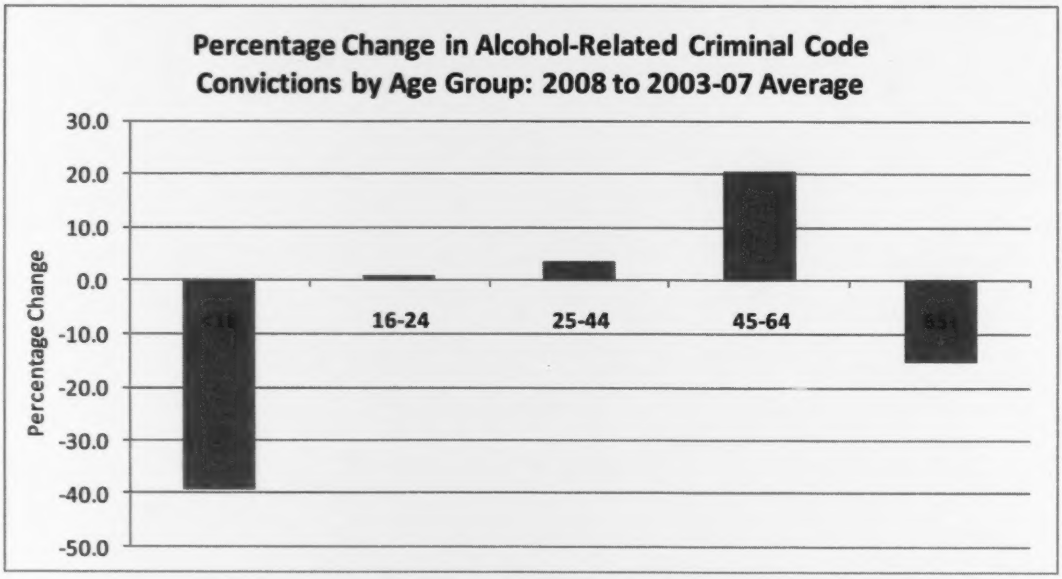
Caution: The count of convictions shown does not take into account the number of licensed drivers by age group.

During the twenty-year period 1989 to 2008, all age groups recorded declines in alcohol-related Criminal Code convictions. The largest decreases are among drivers aged 21 to 24, 25 to 29 and 30 to 34, which amounted to 64.8%, 68.3% and 67.5%, respectively. The 45 to 49 year old group recorded the smallest decrease in alcohol-related Criminal Code convictions, 18.6%, followed by 50 to 54 year olds at a 28.2% decrease, and finally the 60 to 64 year old group at a 33.8% decrease.

Comparing the number of convictions in 2008 to the convictions recorded in the previous five years (2003 to 2007) on average:

- There are 5.3% more convictions in 2008 than in the previous five years on average;
- The youngest and oldest age groups all show decreases in the number of convictions (<16 years – down by a count of three; 65-69 years – no change in count, but a small percentage decrease; 70-74 years – down by a count of 1; 65+ years – down by a count of 4);
- 18-20 year olds show a decrease in convictions (decreased by 11.8%, down by a count of 31), as do 35 to 39 year olds (decreased by 6%, down by a count of 12);
- 45 to 49 year olds and 50 to 54 year olds show the largest increases in convictions (25% and 23.2%, respectively), followed by 55 to 59 year olds (14.9% increase) and by 21 to 24 year olds and 25 to 29 year olds, both showing increases of more than ten percentage points (11.1% and 12.7%, respectively).

Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group



The overall increase in convictions, comparing 2008 to the previous five years on average, are being driven by drivers over the age of 25 and particularly by drivers aged 45 to 64. While there was an overall increase of 102 convictions in 2008 compared to the previous five years on average, convictions among drivers age 45 to 64 increased by a count of 73 and convictions among drivers age 25 to 44 increased by a count of 32. The increase noted among drivers aged 25 to 44 are mostly accounted for by drivers aged 25 to 29 (as shown in Table 12-2). While convictions among drivers age 16 to 24 show relatively little change in 2008 compared to the previous five years on average, this is actually due to an increase in convictions among 21 to 24 year olds being offset by a decrease among 18 to 20 year olds (as shown in Table 12-2).

Table 12-3: Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type

Table 12-3
Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type: 2008

Age Group	Alcohol Content Over .08		Impaired Driving		Impaired Driving Causing Injury/Death		Refuse Sample		Total
	253B	253BC	253A	253AC	Injury	Death	254-5	254-5C	
<16	2	0	2	0	0	0	0	0	4
16-17	35	0	23	0	0	0	1	0	59
18-20	175	0	53	0	3	0	3	0	234
21-24	222	0	87	1	0	0	10	0	320
25-29	200	1	90	0	3	0	18	0	312
30-34	162	0	67	2	1	0	13	0	245
35-39	117	0	63	0	2	1	13	0	196
40-44	116	2	70	1	0	1	11	0	201
45-49	120	1	63	0	2	0	11	0	197
50-54	68	1	40	0	2	0	6	0	117
55-59	51	0	17	0	2	1	3	0	74
60-64	32	0	11	0	0	0	0	0	43
65-69	14	0	6	1	0	0	0	0	21
70-74	7	0	1	0	0	0	0	0	8
75+	3	0	0	0	0	0	0	0	3
Total	**1,324**	**5**	**593**	**5**	**15**	**3**	**89**	**0**	**2,034**

Caution: The count of convictions shown does not take into account population demographics by age group or the number of licensed drivers by age group.

Table 12-4: Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group

Table 12-4

Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group: 1998, 2003 and 2008

Age Group	1998			2003			2008		
	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers
<16-24*	913	28.4%	14.5%	680	31.0%	14.4%	617	30.3%	14.1%
25-44	1,715	53.3%	41.2%	1,056	48.1%	37.1%	954	46.9%	33.7%
45-64	521	16.2%	29.9%	412	18.8%	33.4%	431	21.2%	36.5%
65+	70	2.2%	14.4%	49	2.2%	15.1%	32	1.6%	15.6%
Total	**3,219**	**100%**	**100%**	**2,197**	**100%**	**100%**	**2,034**	**100%**	**100%**

* Includes statistics for individuals under the age of 16 convicted of an alcohol-related Criminal Code offence.

Overall, drivers convicted of alcohol-related convictions decreased by 37%, from 3,219 in 1998 to 2,034 in 2008.

<16 to 24 Age Group

Licensed drivers up to the age of 24 are overrepresented in alcohol-related Criminal Code convictions. Although accounting for 14.5% of all licensed drivers in 1998, they accounted for 28.4% of alcohol offence convictions. In 2008, these drivers represented 14.1% of the licensed drivers, but accounted for 30.3% of convictions.

25 to 44 Age Group

Drivers between the ages of 25 to 44 account for the highest proportion of alcohol-related Criminal Code convictions. In the years 1998, 2003 and 2008, drivers in this group made up 41.2%, 37.1% and 33.7% of licensed drivers, respectively. However, these drivers accounted for 53.3%, 48.1% and 46.9% of alcohol-related Criminal Code convictions in the years 1998, 2003 and 2008, respectively.

45 to 64 Age Group

Drivers aged 45 to 54 are underrepresented in alcohol-related Criminal Code convictions. In the years 1998, 2003 and 2008, drivers in this group made up 29.9%, 33.4% and 36.5%, respectively, of licensed drivers. However, these drivers accounted for only 16.2%, 18.8% and 21.2%, respectively, of alcohol-related Criminal Code convictions in the same years.

65 and Older Age Group

Older drivers are underrepresented in alcohol-related Criminal Code convictions. In the years 1998, 2003 and 2008, drivers 65 years of age and older made up 14.4%, 15.1% and 15.6% of licensed drivers, but accounted for only 2.2%, 2.2% and 1.6% of alcohol-related Criminal Code convictions in the years 1998, 2003 and 2008, respectively.

Table 12-5: Driver Involvement in 'First', 'Second' and 'Third and Subsequent' Alcohol-Related Criminal Code Convictions by Age Group

Table 12-5

Driver Involvement in 'First', 'Second' and 'Third and Subsequent' Alcohol-Related Criminal Code Convictions by Age Group: 1998, 2003 and 2008

Age Group	1998			2003			2008		
	Alcohol* Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000
Total Alcohol-Related Criminal Code Convictions									
<16-24	913	100,754	9.1	680	103,481	6.6	617	109,587	5.6
25-44	1,715	285,253	6.0	1,056	266,979	4.0	954	261,782	3.6
45-64	521	207,012	2.5	412	240,676	1.7	431	283,428	1.5
65+	70	99,922	0.7	49	108,963	0.4	32	121,412	0.3
Total	**3,219**	**692,941**	**4.6**	**2,197**	**720,099**	**3.1**	**2,034**	**776,209**	**2.6**
First Occurrence									
<16-24	793	100,754	7.9	612	103,481	5.9	568	109,587	5.2
25-44	1,422	285,253	5.0	903	266,979	3.4	835	261,782	3.2
45-64	443	207,012	2.1	370	240,676	1.5	380	283,428	1.3
65+	59	99,922	0.6	49	108,963	0.4	30	121,412	0.2
Total	**2,717**	**692,941**	**3.9**	**1,934**	**720,099**	**2.7**	**1,813**	**776,209**	**2.3**
Second Occurrence									
<16-24	107	100,754	1.1	60	103,481	0.6	43	109,587	0.4
25-44	217	285,253	0.8	112	266,979	0.4	94	261,782	0.4
45-64	66	207,012	0.3	37	240,676	0.2	38	283,428	0.1
65+	7	99,922	0.1	0	108,963	-	2	121,412	<0.1
Total	**397**	**692,941**	**0.6**	**209**	**720,099**	**0.3**	**177**	**776,209**	**0.2**
Third and Subsequent Occurrence									
<16-24	13	100,754	0.1	8	103,481	0.1	6	109,587	0.1
25-44	76	285,253	0.3	41	266,979	0.2	25	261,782	0.1
45-64	12	207,012	0.1	5	240,676	<0.1	13	283,428	<0.1
65+	4	99,922	<0.1	0	108,963	-	0	121,412	-
Total	**105**	**692,941**	**0.2**	**54**	**720,099**	**0.1**	**44**	**776,209**	**0.1**

* For comparative purposes, the report assumes each alcohol-related Criminal Code conviction is for a single licensed driver although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year or specific incident.

Compared to ten years ago, the relative involvement rate of drivers in alcohol-related Criminal Code convictions has declined by 44% (4.6 per 1,000 licensed drivers in 1998; 2.6 per 1,000 licensed drivers in 2008).[6]

<16 to 24 Age Group

For every 1,000 licensed drivers in this age group, there were 9.1, 6.6 and 5.6 alcohol-related Criminal Code convictions in 1998, 2003 and 2008, respectively. The 2008 rate for this age group is 38% below the 1998 rate.

---

[6] Please note that due to the inclusion of only one decimal place in the figures displayed in Table 12-5 that some of the percentage changes in involvement rate noted will be different than those calculated using the figures from the table. The reported percentage change uses multiple decimal points in its calculation while the displayed figures have been rounded to one decimal.

25 to 44 Age Group

The relative involvement rate of drivers aged 25 to 44 in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 6.0 in 1998, 4.0 in 2003, and 3.6 in 2008. The 2008 rate for this age group is 39% below the 1998 rate.

45 to 64 Age Group

The relative involvement rate of drivers aged 45 to 64 in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 2.5 in 1998, 1.7 in 2003, and 1.5 in 2008. The 2008 rate for this age group is 40% below the 1998 rate.

65 and Older Age Group

The relative involvement rate of drivers aged 65 and older in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 0.7 in 1998, 0.4 in 2003, and 0.3 in 2008. The 2008 rate for this age group is 62% below the 1998 rate.

First Occurrence

In 2008, the number of drivers convicted of an alcohol-related Criminal Code offence for the **first** time has decreased by 33% compared to ten years ago (2,717 in 1998; 1,813 in 2008).

Comparing the involvement rates (per 1,000 licensed drivers) for 1998 and 2008, first occurrence Criminal Code convictions for all age groups decreased.

- Age 24 and under – a 34% decrease in 2008 compared to 1998
- Age 25 to 44 – a 36% decrease in 2008 compared to 1998
- Age 45 to 64 – a 37% decrease in 2008 compared to 1998
- Age 65 and older – a 58% decrease in 2008 compared to 1998

Second Occurrence

In 2008, the number of drivers convicted of an alcohol-related Criminal Code offence for the **second** time has decreased by 55% compared to ten years ago (397 in 1998; 177 in 2008).

Comparing the involvement rates (per 1,000 licensed drivers) for 1998 and 2008, second occurrence Criminal Code convictions for all age groups decreased.

- Age 24 and under – a 63% decrease in 2008 compared to 1998
- Age 25 to 44 – a 53% decrease in 2008 compared to 1998
- Age 45 to 64 – a 58% decrease in 2008 compared to 1998
- Age 65 and older – a 77% decrease in 2008 compared to 1998

Third and Subsequent Occurrence

In 2008, the number of drivers convicted of an alcohol-related Criminal Code offence for the **third and subsequent** time has decreased by 58% compared to ten years ago (105 in 1998; 44 in 2008).

Comparing the involvement rates (per 1,000 licensed drivers) for 1998 and 2008, third and subsequent occurrence Criminal Code convictions for all age groups decreased.

- Age 24 and under – a 58% decrease in 2008 compared to 1998
- Age 25 to 44 – a 64% decrease in 2008 compared to 1998
- Age 45 to 64 – a 21% decrease in 2008 compared to 1998
- Age 65 and older – there were no third and subsequent offence convictions in this group in 2008.

CAUTION: Please interpret numbers of convictions for 'second' and 'third and subsequent' offences with care. Due to the small numbers of these convictions overall, small shifts in the counts can produce relatively large percentage change differences.

Glossary – Terms & Definitions

Terms and Definitions

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes, primarily, collisions involving more than one configuration or sequence of events.

"Active Drivers"

- Drivers holding an active Manitoba Driver's Licence of any specific Licence Class

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"ATV"

- All Terrain Vehicle; includes vehicles with 3, 4 and 6 wheels.

"Blood alcohol content (BAC)"

- A measure of the concentration of alcohol in a person's blood. A measure of ".08 BAC" is equivalent of 80 milligrams of alcohol per 1,000 milligrams of blood, or 0.08%.

"Casualty Involvement Rate"

- A calculation of the number of victims or casualties involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal injury sustained (i.e., victims sustaining a serious/major, minor or minimal injury).

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Contributing Factor"

- Those circumstances or factors that the reporting police officer recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"Criminal Code 253A" and "Criminal Code 253B"[7]: Impaired driving

- Every one commits an offence who operates a motor vehicle or vessel or operates or assists in the operation of an aircraft or of railway equipment or has the care or control of a motor vehicle, vessel, aircraft or railway equipment, whether it is in motion or not,
    - (*a*) while the person's ability to operate the vehicle, vessel, aircraft or railway equipment is impaired by alcohol or a drug; or
    - (*b*) having consumed alcohol in such a quantity that the concentration in the person's blood exceeds eighty milligrams of alcohol in one hundred millilitres of blood.
- For greater certainty, the reference to impairment by alcohol or a drug in paragraph (*a*) includes impairment by a combination of alcohol and a drug.
- "253AC" and "253BC" indicate a conviction when there was a youth in the vehicle.

"Criminal Code Statute 254-5": Refusing to comply with a request for sample

- If a peace officer has reasonable grounds to suspect that a person has alcohol or a drug in their body and that the person has, within the preceding three hours, operated a motor vehicle or vessel, operated or assisted in the operation of an aircraft or railway equipment or had the care or control of a motor vehicle, a vessel, an aircraft or railway equipment, whether it was in motion or not, the peace officer may, by demand, require the person to comply with paragraph (*a*), in the case of a drug, or with either or both of paragraphs (*a*) and (*b*), in the case of alcohol:
    - (*a*) to perform forthwith physical coordination tests … and, if necessary, to accompany the peace officer for that purpose; and
    - (*b*) to provide forthwith a sample of breath that, in the peace officer's opinion, will enable a proper analysis to be made by means of an approved screening device and, if necessary, to accompany the peace officer for that purpose.
- Everyone commits an offence who, without reasonable excuse, fails or refuses to comply with a demand made under this section.
- "254-5C" indicates a conviction when there was a youth in the vehicle.

"Criminal Code Statute 255-2": Impaired driving/refusing to provide sample causing injury

- Everyone who commits an offence under paragraph 253(*a*) and causes bodily harm to another person as a result is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.

---

[7] Definitions for Criminal Code Statute 253, 254 and 255 are taken directly from the **Criminal Code (R.S., 1985, c. C-46)** of Canada, as posted on the Department of Justice website. (http://laws.justice.gc.ca/en/)

"Criminal Code Statute 255-3": Impaired driving/refusing to provide sample causing death

- Everyone who commits an offence under paragraph 253(*a*) and causes the death of another person as a result is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in the death of another person is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in the death of another person, or in bodily harm to another person whose death ensues, is guilty of an indictable offence and liable to imprisonment for life.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed to drive in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This relative involvement rate does not take into account the number of vehicle kilometres driven by each driver group. More detail regarding the methodology used to count licensed drivers can be found in "*Section 2 Licensed Drivers*" of this report.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Graduated Driver Licensing (GDL)"

- A three-stage program designed to help new drivers, regardless of age, acquire the knowledge and skill needed to safely operate a motor vehicle. Each licence stage has specific rules and restrictions governing when and under what circumstances the holder is allowed to operate a motor vehicle, enabling novice drivers to gain more experience under a greater variety of driving conditions. Both Class 5 and Class 6 licences have a GDL stage associated with them.
- Three stages of GDL: Learner (5/L or 6/L); Intermediate (5/I or 6/I); and, Full (5/F or 6/F).
- To view a full discussion of the GDL program in Manitoba, please visit:
  - http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGuide.pdf; ou en Français,
  - http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGUIDEfr.pdf

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Injured"

- The casualty type "injured" indicates the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Killed"

- The casualty type "killed" indicates the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Licence Class"

- A Manitoba Driver's Licence of a specific level which permits the holder to operate vehicles within a specific Vehicle Class

"Licensed Drivers"

- A count of all Manitobans aged 16 and older who hold a valid licence within the licensing year including active and suspended drivers. (See *Section 2 Licensed Drivers* for more information)

"Light Condition"

- Describes the light conditions at the scene of the accident, including:
    - Day – the light conditions which normally occur between one half hour after sunrise and one half hour before sunset;
    - Dawn – the light conditions which normally occur between one half hour before sunrise and one half hour after sunrise;
    - Dusk – the light conditions which normally occur between one half hour before sunset and one half hour after sunset;
    - Dark – the light conditions which normally occur between one half hour after sunset and one half hour before sunrise; and,
    - Artificial lighting – artificial illumination devices were functioning at the accident site under light conditions which normally occur between one half hour after sunset and one half hour before sunrise.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg and pick-up under 4,500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) classification of vehicles is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"Off-road Vehicle (ORV)"

- One of several vehicle types designed for off-road use. It includes snowmobiles, off-road motorcycles, all-terrain vehicles (ATVs), amphibious vehicles, dune/sport buggies, and 4-wheel drive vehicles operated off-road.

"Pedestrian Action"

- Refers to the actions taken by a pedestrian immediately prior to a collision (including: crossing at an intersection with or without the right-of-way, crossing between intersections, running into the roadway, walking on the roadway, lying on the roadway, playing on the roadway, etc.).

"Pedestrian Involvement Rate"

- A calculation of the number of pedestrians involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Pre-collision activity"

- The action of a vehicle immediately prior to involvement in a collision. This is an indication of what the vehicle was doing prior to the accident or to the driver realizing that a collision may occur and does not include vehicle manoeuver to avoid the collision.

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"PSV Vehicles"

- Also known as 'public service vehicles', a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Other school vehicle", and "Emergency vehicles", including ambulance, fire and police vehicles.

"Region"

- Manitoba Infrastructure and Transportation is served by 5 regional office locations, each responsible for a geographic region (for boundaries, see Map 11-1). Regions are used in this section to indicate in which region a collision occurred.

"Relative Involvement"

- A calculation of the number of collisions per specific unit of licensed drivers or registered vehicles. For the purposes of this report, relative involvement is calculated per 10,000 licensed drivers or registered vehicles.

"Reportable Collision"

- Motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report for the collision. This report deals with these reportable collisions and the Traffic Accident Reports arising from them.

"Road User Class"

- A classification based on how a person involved in a collision was using the road at the time of the collision. It includes: Drivers (of motor vehicles), Passengers (in motor vehicles), those Riding/Hanging On (to a motor vehicle), Motorcyclist (drivers and passengers), Moped (drivers and passengers), Bicyclist (drivers and passengers), and Pedestrians.

"Rural Location"

- Collisions occurring on primary highways, secondary highways and local roadways, including the Trans Canada Highway and excluding those that occur within the municipal boundaries of an urban area.

"Suspended drivers"

- Drivers holding a Manitoba Driver's Licence of any specific Licence Class who have been disqualified from driving for some reason. Although the list is extensive, some possible suspensions could be for driving violations, medical conditions, administrative suspensions and criminal code convictions.

"Urban Location"

- Collisions occurring within the municipal boundaries of urban areas, including Winnipeg, Brandon, Portage la Prairie, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and others.

"Vehicle Class"

- Category of vehicles meeting specific designations and specifications
- Non-commercial vehicle classes are vehicles registered for private use and include:
    - Passenger - A motor vehicle classified by the manufacturer as a passenger car or which is designed, constructed or adapted for the principle purpose of transporting passengers and includes a delivery car, but does not include a motorcycle, moped or motor vehicle which is designed, constructed or adapted for the purpose of carrying goods or commodities.
    - Antique - A car, truck or motorcycle that is more than thirty years old at the time of application for registration. A motor vehicle registered as an antique car, truck or motorcycle can be driven only when: taking it to be repaired or serviced; displaying it to the public in a parade or procession and driving it to or from such a parade or procession; driving it to an antique car, truck or motorcycle rally as authorized by the Registrar of Motor Vehicles.
    - Motorcycle - A vehicle that has a steering handlebar completely constrained from rotating in relation to the axle of one wheel in contact with the ground, is designed to travel on not more than three wheels in contact with the ground, has a minimum unladen seat height of 650 millimetres, has a minimum wheel rim diameter of 250 millimetres, has a minimum wheelbase of 1,016 millimetres, and, has a maximum speed capability of more than 50 km/h but does not include a moped, power-assisted bicycle or tractor.
    - Moped - A motor vehicle which has 2 tandem wheels or 3 wheels, each of which is more than 250 millimetres in diameter, has a seat or saddle having a minimum unladen height of 650 millimetres, when measured from the ground level to the top of the forward most part of the saddle, is capable of being driven at all times by pedals only if so equipped, by motor only or by both pedals and motor, and, the motor has a piston displacement of not more than 50 cubic centimetres, or is an electric motor neither of which is capable of enabling the moped to attain a speed greater than 50 km/h.
    - Truck – see "Passenger".
    - Farm Truck - A motor vehicle classified as a "truck" at time of registration and is owned by a person engaged in farming.
    - Snow Vehicle A vehicle that has a gross vehicle weight in exceeding 454 kilograms and is not equipped with wheels, but in place thereof is equipped with tractor treads alone or with tractor treads and skis, or with skis and a propeller, or is a toboggan equipped with tractor treads or a propeller, is designed primarily for operating over snow or ice, and is used primarily for that purpose, and is designed to be self-propelled.
    - Trailer - A vehicle designed for carrying persons or chattels, and for being towed by a motor vehicle, and includes a farm trailer but does not include an implement of husbandry that is temporarily towed, propelled, or moved upon a highway.
    - Tractor - A self-propelled vehicle that is designed primarily for traction purposes, and that is not itself constructed to carry a load other than the driver, and includes a farm tractor but does not include a truck tractor or a special mobile machine.
- Commercial vehicle classes are those involving vehicles registered to or for the use of a business and include:
    - Truck - A truck (or trailer) used to transport the registered owner's (or lessee's) own business goods: beyond a radius of 20 kilometres of the City of Winnipeg, where the registered owner's business address is in the City of Winnipeg, beyond a radius of 30 kilometres of a city, town or village other than the City of Winnipeg, where the registered owner's address is not in the City of Winnipeg.

- Public Service Vehicles (PSV) - A motor vehicle or trailer operated by or on behalf of any person, for transportation for gain or compensation of persons or property upon a highway, and includes a semi-trailer truck; but does not include the passenger-carrying-motor vehicles of an electric, or steam railway or motor bus company operating on the streets of a city, or school buses, ambulances or hearses or motor vehicle operated for gain or compensation under *The Taxicab Act* or a municipal by-law in cities, towns, and villages.
- Dealer - A person who carries on the business as principal or agent, or who holds himself or herself out as carrying on the business as principal or agent, (a) of buying motor vehicles or trailers; (b) of selling motor vehicles or trailers, whether or not in combination with leasing them; or (c) of buying and selling motor vehicles or trailers, whether or not in combination with leasing them.
- Repairer - A person who maintains a garage for the purpose of rendering services therein upon motor vehicles and/or trailers, at a charge, price or consideration; or who owns and operates a fleet of five or more motor vehicles or trailers; or both, and maintains a facility for their repair, is permitted under The Highway Traffic Act to obtain "Repairer" licence plates to be used to transport motor vehicles for repair from place of origin to the repair facility and return, and the testing of the motor vehicle after the repair work has been completed.
- Taxi - A motor vehicle had, kept, used, intended for use, or operated, for the transportation of persons for compensation, and includes such vehicles when garaged or under repair; but does not include a public service vehicle, a trolley bus or passenger-carrying motor vehicle or a public transportation system operating on the streets of a city, a school bus, an ambulance, a hearse, or a motor vehicle, or vehicle of a class of motor vehicles, that The Taxicab Board established under The Taxicab Act excludes from the definition of a taxicab under that Act.
- Livery - A vehicle licenced under *The Highway Traffic Act* for the transportation of persons for compensation and is licensed to operate in the Province according to terms issued by the Motor Transport Board.
- Trailers – see previous definition.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Vehicle Occupant"

- All those in the "Road User Class" of "Drivers" and "Passengers". It excludes "Motorcyclist", "Bicyclist", "Moped", those "Riding/Hanging On" to a vehicle and "Pedestrians".

"Vehicle Involvement Rate"

- A calculation of the number of vehicles involved in traffic collisions for every 10,000 vehicles registered in Manitoba. The total number of vehicles registered is based on a point-in-time observation of the number of vehicles registered in specific vehicle classes. More detail regarding the methodology used to count registered vehicles can be found in "*Section 3 Vehicle Registrations*" of this report.

"Weather Condition"

- Describes the weather conditions prevalent at the time of the accident, including:
    - Clear – bright conditions, without precipitation or airborne matter, are recorded as clear;
    - Cloudy – dull, overcast conditions, without precipitation or airborne matter, are recorded as cloudy;
    - Raining – raining (self explanatory);
    - Snowing – snowing (self explanatory);
    - Fog or Mist – airborne matter, of natural origin, which obscures visibility;
    - Smoke or Dust – airborne matter, of a natural or artificial origin, which obscures visibility;
    - Freezing Rain / Sleet / Hail – freezing rain, sleet or hail (self explanatory);
    - Drifting Snow – snow drifting on or above roadway, which obscures visibility of the roadway, road markings, traffic devices or roadway fixtures; and,
    - Strong Winds – used if wind was a contributing factor in the accident.